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CROP PRODUCTION PRACTICES *and* RESOURCES *on* FARMS

Northeast

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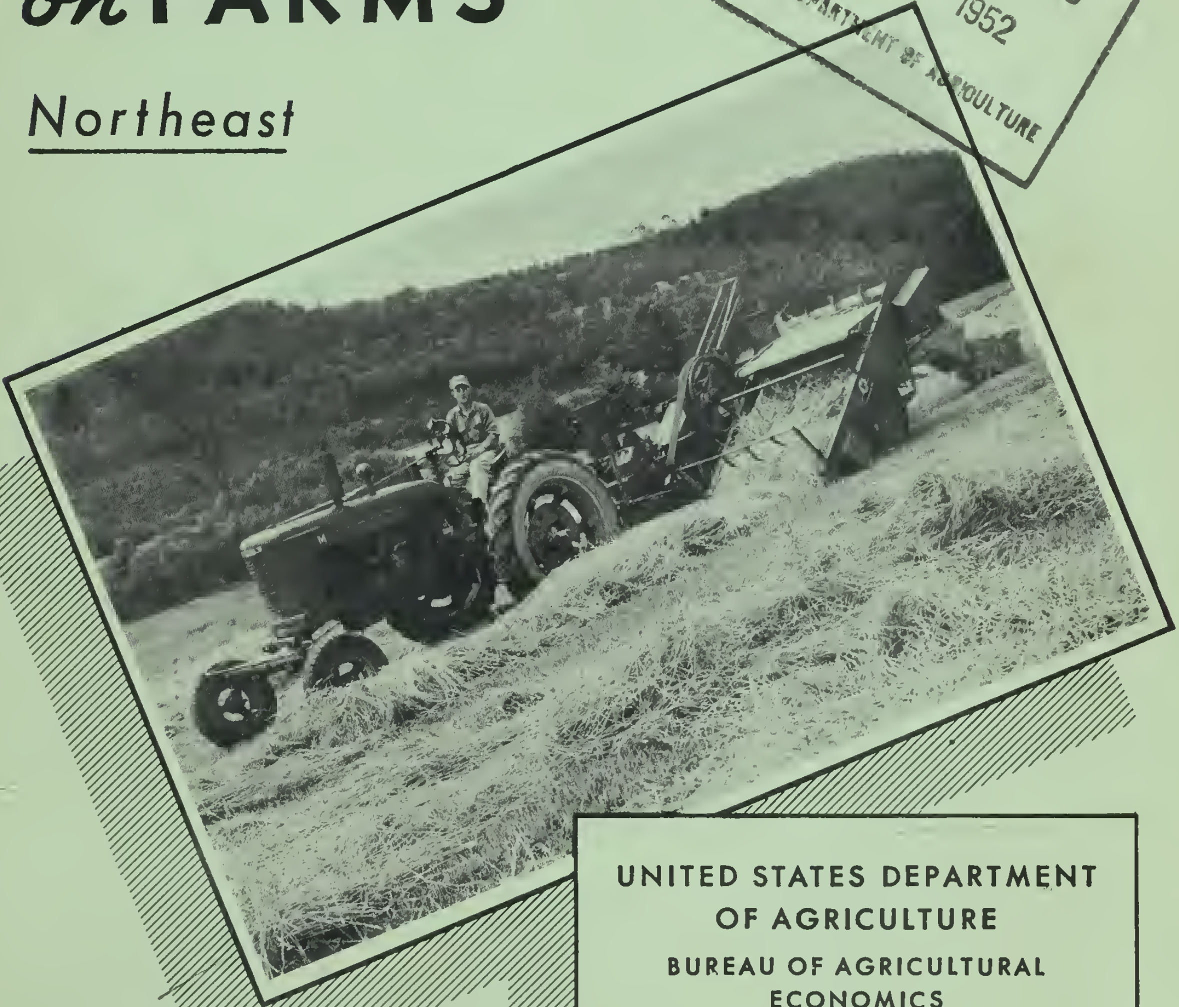


UNITED STATES DEPARTMENT
OF AGRICULTURE
BUREAU OF AGRICULTURAL
ECONOMICS
WASHINGTON, D. C.
June 1952

235769

CROP PRODUCTION PRACTICES AND RESOURCES USED ON FARMS

Section 1- NORTHEAST

This publication presents information concerning production practices, man labor, power, machinery, and material requirements for several important crops in specified type-of-farming areas in the Northeast.

The information presented for each crop in each type-of-farming area was obtained from approximately 30 to 90 farmers through personal interviews. Field surveys were made in 1948, 1949, 1950, and 1951. For the most part, information obtained was for the crop last harvested. As a result, data in this publication cover specified crops harvested in 1947 through 1951. Surveys have been made for crops in other areas. Information relating to these crops is to be released as rapidly as it can be summarized.

Additional surveys are already planned. Some of these will cover additional areas and probably some different crops. Also, it is planned to repeat surveys in many of these areas to keep current as to changing practices and methods of production.

Farms included in the survey were selected through accepted random sampling methods from those growing the crops on a commercial basis in the specified area. In some instances, production of a particular crop was confined to a comparatively small area or to a number of small areas. Sometimes a crop was grown by practically all farmers in the type-of-farming area. In each instance, an attempt was made to obtain a cross-section of the commercial producers in the type-of-farming area.

Although the number of farms surveyed for each crop does not appear to be large, in most cases enough farms were surveyed so that reasonably stable averages for the common and important items were obtained. It was practically impossible to obtain statistically reliable estimates for many items on crops for which practices varied widely. This was particularly true when new practices and materials had been recently introduced and had not as yet been adopted by many producers.

For example, in some areas the use of commercial fertilizers has been a standard practice for many years in the production of some crops. However, use of fertilizers in production of other crops in certain areas is still in the experimental stage, and the number of farmers using fertilizers and the kinds and amounts of fertilizer used vary widely.

Use of weed sprays is becoming common in many areas. Several new kinds of insecticides and fungicides are used and the method of applying them and the kind of equipment used vary widely. A good deal of spraying and dusting is done with custom or contract outfits. Much of it is done with wholly or partially farmer-made equipment. Some of the material is applied by airplane, particularly in later stages in the growth of the crop. These recent innovations in materials used and methods of application cause wide variation in materials used and practices followed by farmers.

In each instance, the farmer was asked to enumerate operations in the sequence in which they were performed. Kind and size of machine and tractor used and the number of men and the time required per acre were recorded for each operation. In the case of practices that were repeated, such as cultivating and irrigating, and consistent or significant differences in time requirements between practices were noted, the pertinent detail is listed separately in the summary tables.

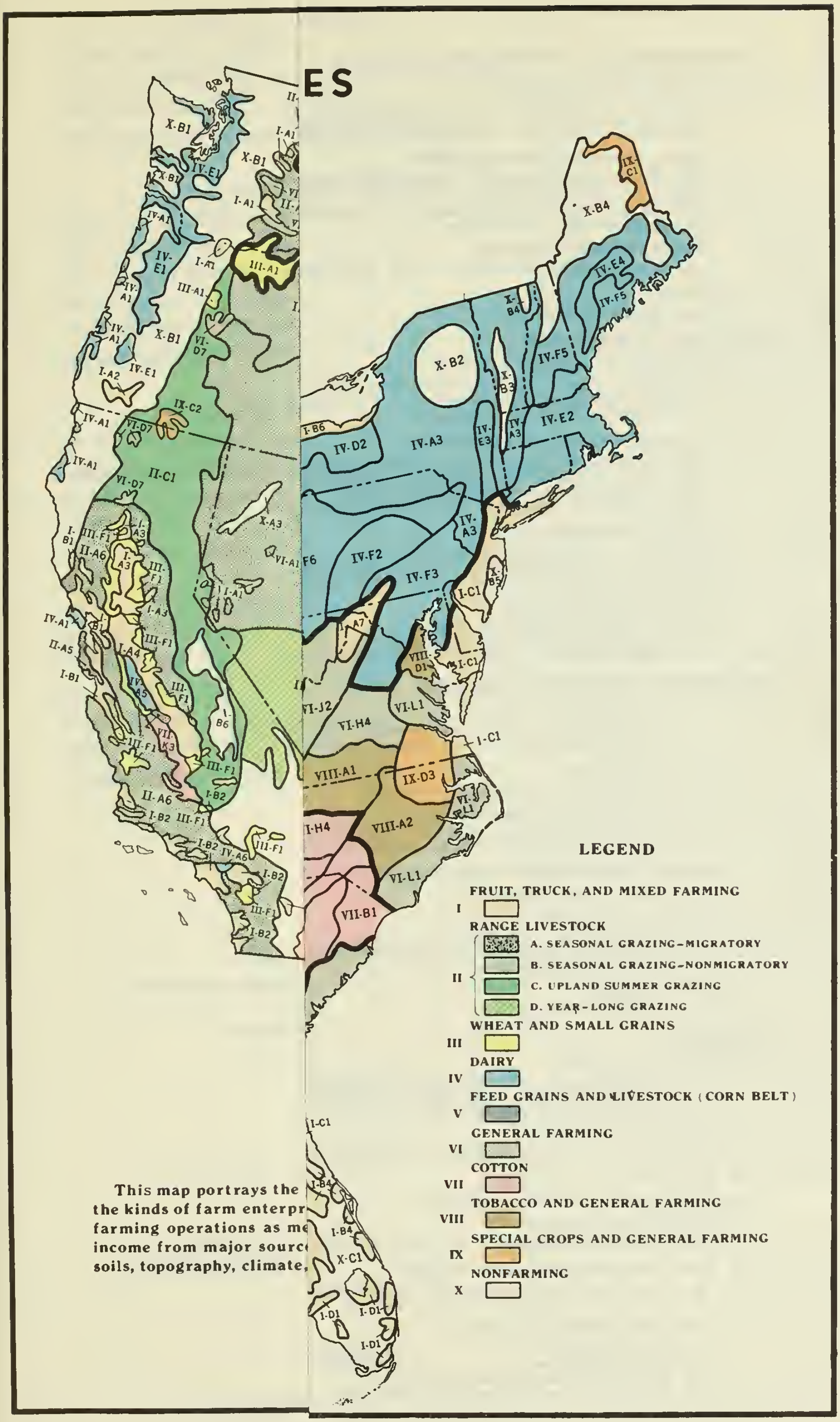
An attempt was made to account for all labor, power, machinery, contract or custom work, and material used in producing and harvesting the crops. In summarizing the data, certain items were combined unless it was apparent that the material or practice was increasing in importance and probably would become largely universal. For example, the use of pick-up balers, commercial fertilizers, and some pesticides appeared to be increasing in importance. These were listed and the percentage of the acreage covered was given so that at a later date changes in practices may be estimated.

Miscellaneous sizes of equipment were not listed in the final summaries but time requirements, acreage covered, and pertinent data for such operations were included with operations of important sizes of the same kind of equipment. For example, for a given crop in a certain area, 65 percent of the plowing was done with 2-14 inch plows, 30 percent with 1-16 inch plows, 3 percent with 1-18 inch plows, and 2 percent with 1-14 inch plows. In this case, acreages plowed with 1-14 and 1-18 inch plows are combined with the acreage plowed with 1-16 inch plows, and the rate of plowing carried in the summary for one-bottom plows is that for 1-16 inch plows.

In some instances it was impossible to obtain performance rates for custom machines from the persons interviewed. For this reason the rate used in the summaries for many custom jobs is the average rate given by farm operators who use the same sized machines and crews. Custom work performed with several sizes of equipment, of which only one or two accounted for a sizable portion of the acreage, is listed with the more common size or sizes of equipment.

All work performed, regardless of who performed the service, and all materials used are included in the summary. Unless otherwise specified, a tractor was the source of power. Performance rates are those given for actual field operations under usual conditions. Time required in extensive repairs, break-downs, and general farm overhead were not included. In the final summarization, time requirements for each operation were multiplied by a specified factor to account for direct man-labor spent in lubricating, checking and adjusting machines, making minor repairs, and moving from field to field.

Immediately following this discussion is a map which identifies or locates each type-of-farming area. The identification of type-of-farming areas given on the map corresponds with the identification of the type-of-farming areas listed in the tables that follow, showing crops, areas and the year to which the data apply.



This map portrays the
the kinds of farm enterpr
farming operations as me
income from major sourc
soils, topography, climate,

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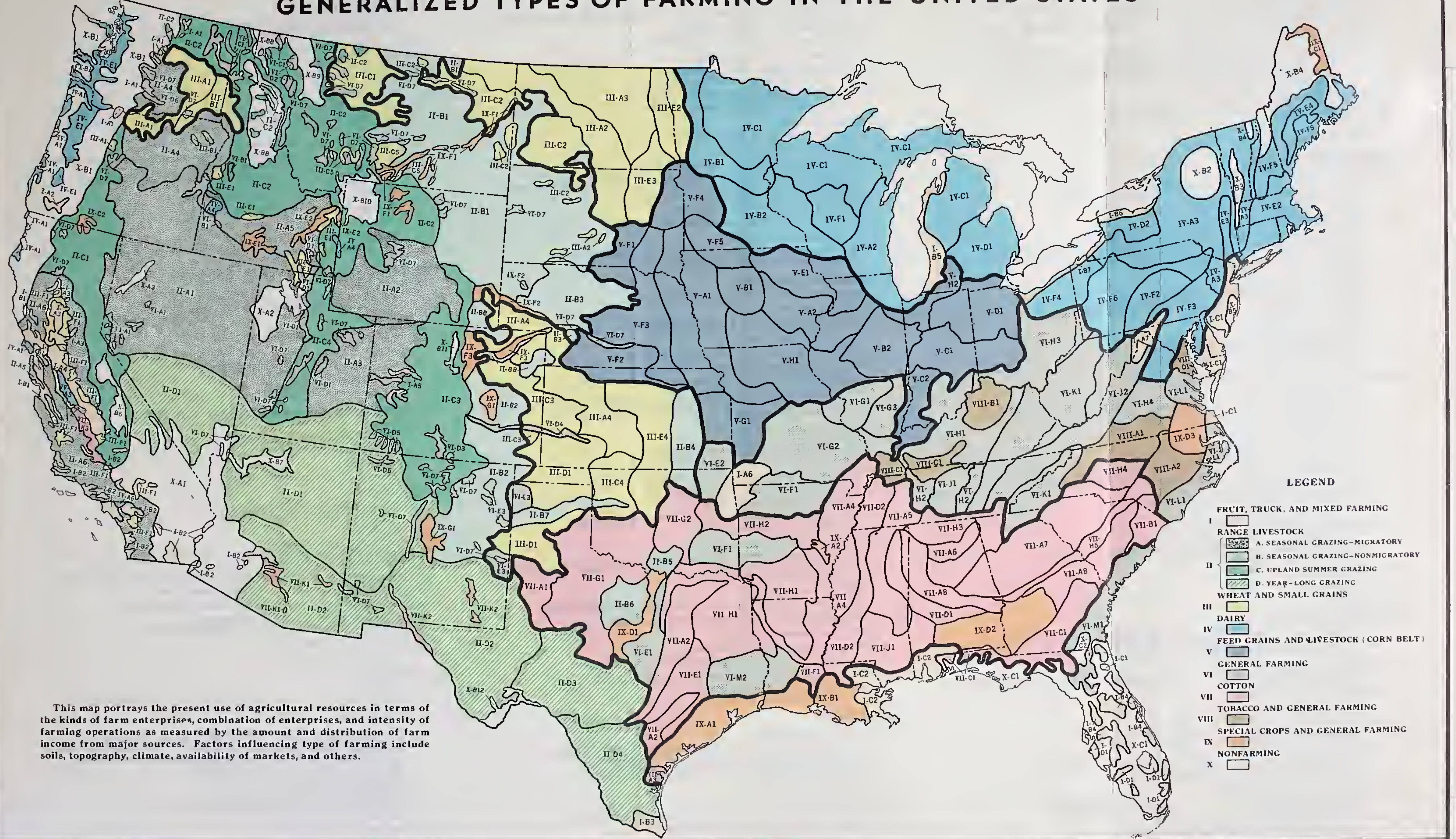
GENERALIZED TYPES OF FARMING IN THE UNITED STATES


LEGEND
I FRUIT, TRUCK, AND MIXED FARMING
II RANGE LIVESTOCK
A. SEASONAL GRAZING–MIGRATORY
B. SEASONAL GRAZING–NONMIGRATORY
C. UPLAND SUMMER GRAZING
D. YEAR-LONG GRAZING
III WHEAT AND SMALL GRAINS
IV DAIRY
V FEED GRAINS AND LIVESTOCK (CORN BELT)
VI GENERAL FARMING
VII COTTON
VIII TOBACCO AND GENERAL FARMING
IX SPECIAL CROPS AND GENERAL FARMING
X NONFARMING

This map portrays the present use of agricultural resources in terms of the kinds of farm enterprises, combination of enterprises, and intensity of farming operations as measured by the amount and distribution of farm income from major sources. Factors influencing type of farming include soils, topography, climate, availability of markets, and others.

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1949

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Following the map is a listing of the crops for which data were obtained in the Northeast, the year to which the data pertain, and the type-of-farming area or portion of the area in which the survey was made. Data obtained for the crop produced in part of the type-of-farming area are so specified.

Information similar to that presented in this publication is given in other publications for: (1) the Corn Belt and Lake States, (2) the Appalachian, Southeast and Mississippi Delta, (3) the Northern and Southern Plains, and (4) the Mountain and Pacific States. A list of States included in each type-of-farming region, together with the information available for each region, appears at the end of this publication.

Requests for this information have come from many sources. One of the primary uses of the data has been to enable the Bureau of Agricultural Economics to provide the Federal Crop Insurance Corporation with estimates of farmers' investments in insured crops by stages in the growth of the crop. These estimates are revised each year as practices and cost rates change.

Extensive use is made of the data in many research projects, particularly in the research work relating to costs and returns in the Bureau of Agricultural Economics. Wide use of the data also is made by staffs in the Land-Grant Colleges, by other agencies in the Federal Government, and by private organizations and individuals. Staffs in the Land-Grant Colleges in many States contributed data, made helpful suggestions, and assisted in many other ways.

Crops and Type-of-Farming Areas for which Cropping-Practice Data are Available in Section 1

Northeast

Crop	Type-of-farming area	Crop year	Page	Crop	Type-of-farming area	Crop year	Page
Alfalfa:	IV-F4	1949	5	Corn, sweet:	I-Cl		
	IV-F6				(N.J.)	1949	43
	(Pa.)	1949	7				
				Cucumbers:	I-Cl		
Asparagus:					(Md.)	1949	45
Fresh market	I-Cl						
	(N.J.)	1949	9				
Processing	I-Cl			Oats:	IV-F3	1949	47
	(N.J.)	1949	11		IV-F4	1949	49
					IV-F6		
Barley:	I-Cl	1949	13		(Pa.)	1949	51
	IV-F3	1949	15				
	IV-F6			Peas:			
	(Pa.)	1949	17	Processing	I-Cl	1949	53
Beans, lima:				Potatoes:	IV-F6		
Fresh market	I-Cl				(Pa.)	1949	55
	(N.J.)	1949	19				
Processing	I-Cl			Soybeans:	I-Cl	1949	57
	(N.J.)	1949	21		IV-F3	1949	59
Cantaloupe:	I-Cl			Sweetpotatoes:	I-Cl	1949	61
	(Md.)	1949	23				
				Tobacco:			
Clover hay:	IV-F4	1949	25	Type 32	VIII-D1	1949	63
	IV-F6			Type 41	IV-F3		
	(Pa.)	1949	27		(Pa.)	1949	65
Corn, grain:	I-Cl	1949	29	Tomatoes:			
	IV-F3	1949	31	Fresh market	I-Cl		
	IV-F4	1949	33		(N.J.)	1949	67
	IV-F6			Processing	I-Cl		
	(Pa.)	1949	35		(Md.)	1949	69
Corn, silage:	I-Cl						
	(N.J.)	1949	37	Wheat, winter:	I-Cl	1949	71
	IV-F4	1949	39		IV-F3	1949	73
	IV-F6				IV-F4	1949	75
	(Pa.)	1949	41		IV-F6	1949	77

ALFALFA HAY: RESOURCES USED IN PRODUCTION, AREA IV-F4, 1949

The data presented here are based on a survey made on approximately 38 farms in 1950, in northeastern Ohio and northwestern Pennsylvania. These farms are in type-of-farming area IV-F4, a dairy-and general-farming area on the Lake Erie border. Approximately 100 percent of the alfalfa in this area is planted without a nurse crop. Farmers in the area reported that hay seedings lasted about 3 years. Consequently the annual charges are based upon a 3-year stand. Most farmers in the area seed alfalfa in combination with timothy, clover and grass seeds. Only 25 percent seeded alfalfa alone.

The farms surveyed averaged 190 total acres. In 1949, 135 acres were in crops, including 15 acres of alfalfa cut for hay. The average yield of hay was 3.4 tons per acre.

Tractors provide most of the power used on these farms. They were used for operations listed in the following tables unless otherwise indicated. The D.B.H.P. rating of these tractors ranged from 13 to 26; the most common was about 19.

Materials used and contract work hired, 1949

MATERIALS USED

Item	Unit	Quantity per acre	Price per unit	Cost per acre	Acreage covered	Average cost per acre
		Number	Dollars	Dollars	Percent	Dollars
Establish seeding, total:						
Alfalfa seed	Lb.	11	0.61	6.71	100	6.71
Timothy seed	do.	2	.31	.62	49	.30
Red clover seed	do.	4	.59	2.36	39	.92
Ladino clover seed	do.	1	2.20	2.20	21	.46
Brome seed	do.	12	.36	4.32	13	.56
Alsike clover seed	do.	3	.33	.99	6	.06
Manure	Ton	9	1/ 2.00	18.00	45	8.10
Mixed fertilizer	Cwt.	2.50	2.05	5.12	96	4.92
Lime	Ton	2.6	3.85	10.01	70	7.01
Total for establishment						29.04
Annual charge to alfalfa	---	---	---	---	---	9.68
Manure	Ton	9	1/2.00	18.00	6	1.08
Baler twine	Lb.	8.7	.32	2.78	65	1.81
Total materials used						12.57

CONTRACT WORK HIRED

Baling	Bale	101	.09	9.09	10	.91
Total contract work						.91

1/ Estimated.

Man labor, power, and machinery used by operation in producing and harvesting alfalfa hay, area IV-F4, northeastern Ohio and northwestern Pennsylvania, 1949

Operation	Size of equipment	Times over	Time per acre once over		Acreage covered	Average time per acre - all farms		
			Man	Power		Man	Tractor	Horse
		No.	Hrs.	Hrs.	Pct.	Hrs.	Hrs.	Hrs.
Establish seeding, total	---	---	---	---	---	7.54	4.33	1.12
Establish seeding, annual	---	---	---	---	1/	2.51	1.44	.37
Apply manure, spreader	---	1.0	6.28	2.38	6	.38	.14	---
Total preharvest						2.89	1.58	.37
Mow	7-foot	2.1	.62	.55	91	1.18	1.06	---
Mow, horses	6-foot	2.1	1.33	2.44	9	.25	---	.46
Rake, side-delivery	---	2.1	.51	.46	92	.98	.89	---
Rake, side-delivery, h.	---	2.1	.90	1.72	8	.15	---	.29
Haul loose hay	---	2.1	6.70	.94	25	3.52	.49	---
Bale, pick-up	---	2.1	.80	.59	55	.92	.68	---
Bale, pick-up, contract	---	2.1	.48	.42	10	.10	.09	----
Haul bales	---	2.1	2.31	.35	65	3.15	.48	---
Field chop	---	2.1	1.64	1.39	10	.34	.29	---
Haul and blow into silo	---	2.1	4.83	.84	10	1.01	.18	---
Total harvest						11.60	4.16	.75
Total						14.49	5.74	1.12

1/ In this area approximately 100 percent of the farms seeded hay without a nurse crop, and the average life of the crop was 3 years.

ALFALFA, MIXED HAY: RESOURCES USED IN PRODUCTION, AREA IV-F6, 1949

The data presented here are based on a survey made on approximately 20 farms in 1950 in west central Pennsylvania. These farms are in type-of-farming area IV-F6, a dairy-and general-farming area in the Allegheny Plateau. Approximately 100 percent of the alfalfa in this area is planted with a nurse crop. Farmers in the area reported that hay seedings lasted about 3 years. As a result, one-half of the man labor, power, machinery, and material used jointly in establishing the hay seeding and the nurse crop is charged to the hay crop, and one-third of this amount is charged annually to the hay crop. All additional materials, such as alfalfa, clover, and grass seeds, and man labor, power, and machinery used directly in establishing the hay crop are prorated to the annual charges for the hay crop according to the estimated life of the stand.

Most farmers in the area seed alfalfa in combination with timothy clover and grass seeds. Only 7 percent seeded alfalfa alone.

The farms surveyed averaged 254 total acres. In 1949, 92 acres were in crops including 9 acres of alfalfa cut for hay. The average yield of hay was 2.9 tons per acre.

Tractors provide most of the power used on these farms. They were used for operations listed in the following tables unless otherwise indicated. The D.B.H.P. rating of these tractors ranged from 13 to 26; the most common was about 19.

Materials used and contract work hired, 1949

MATERIALS USED

Item	Unit	Quantity per acre	Price per unit	Cost per acre	Acreage covered	Average cost per acre
		Number	Dollars	Dollars	Percent	Dollars
Establish seeding, total:						
Alfalfa seed	Lb.	14	0.67	9.38	100	9.38
Timothy seed	Lb.	4	.30	1.20	89	1.07
Red clover seed	Lb.	4	.58	2.32	43	.99
Alsike clover seed	Lb.	1	.64	.64	18	.12
Manure	Ton	7	1/ 2.00	14.00	54	2/ 3.78
Mixed fertilizer	Cwt.	3.75	2.35	8.81	23	2/ 1.02
Phosphate fertilizer(20%)	Cwt.	2.70	1.55	4.18	9	2/ .19
Limestone	Ton	2.8	4.80	13.44	100	13.44
Total for establishment						29.99
Annual charge to alfalfa	---	---	---	---	---	10.00
Manure	Ton	7	1/ 2.00	14.00	26	3.64
Baler twine	Lb.	7.3	.25	1.82	41	.75
Total annual charge						14.39

CONTRACT WORK HIRED

Baling	Bale	87.2	.12	10.46	24	2.51
Total contract work						2.51

1/ Estimated. 2/ Allocated one-half of the cost to the nurse crop.

Man labor, power, and machinery used by operation in producing and harvesting alfalfa, mixed hay, area IV-F6, west central Pennsylvania, 1949

Operation	Size of equipment	Times over	Time per acre once over		Acreage covered	Average time per acre - all farms		
			Man	Power		Man	Tractor	Horse
		No.	Hrs.	Hrs.	Pct.	Hrs.	Hrs.	Hrs.
Establish seeding:								
Total alfalfa 1/	---	---	---	---	---	4.99	1.44	3.94
Annual 2/	---	---	---	---	---	1.66	.48	1.31
Apply manure, spreader	75 bu.	1.0	4.76	1.67	11	.52	.18	---
Apply manure, horses-sp.	65 bu.	1.0	5.32	6.45	15	.80	---	.97
Total preharvest						2.98	.66	2.28
Mow	7-foot	2.3	.58	.50	72	.96	.83	---
Mow, horses	6-foot	2.3	1.20	2.20	28	.77	---	1.42
Rake, side-delivery	---	2.3	.44	.40	63	.64	.58	---
Rake, dump, horses	---	2.3	.47	.90	37	.40	---	.77
Haul loose hay	---	2.3	5.90	1.03	22	2.99	.52	---
Haul loose hay, horses	---	2.3	5.87	6.27	37	5.00	---	5.34
Bale, pick-up	---	2.3	.53	.46	17	.21	.18	---
Bale, pick-up, contract	---	2.3	.54	.47	24	.30	.26	---
Haul bales	---	2.3	4.02	.64	41	3.79	.60	---
Total harvest						15.06	2.97	7.53
Total						18.04	3.63	9.81

1/ In this area approximately 100 percent of the farmers seeded hay crops with a nurse crop. As a result, the total given here is one-half of the total required jointly to establish the seeding and the nurse crop.

2/ The estimated average life of alfalfa mixed hay seedings in this area is approximately three years. The labor, power, and machinery charged to establishing the seeding are prorated annually to the hay crops according to the average life of seeding.

ASPARAGUS FOR FRESH CONSUMPTION: RESOURCES USED IN PRODUCTION, AREA I-C1, 1949

The data presented here are based on 14 farms in Gloucester County, New Jersey that produce asparagus for fresh consumption. These farms are in type-of-farming area I-C1, a truck-and mixed-farming area in the Atlantic sandy coastal plain.

The farms surveyed averaged 79 total acres, of which 52 were in crops, including 18 in asparagus of producing age. In 1949, the average yield of asparagus on these farms was 129 crates per harvested acre.

Two years are required to establish a field of asparagus. The productive life of a stand is about 15 years. As the age of the bed increases, the yield increases but the quality declines. The cost of establishing a bed in 1949, including the value of unpaid labor used, was about $350 an acre.

Tractors provide most of the power used on farms in this area. They were used for operations listed in the following tables unless otherwise indicated. The D.B.H.P. rating of these tractors ranged from 11 to 27; the most common was about 17.

Materials used and contract work hired, 1949

MATERIALS USED

Item	Unit	Quantity per acre	Price per unit	Cost per acre	Acreage covered	Average cost per acre
		Number	Dollars	Dollars	Percent	Dollars
Manure	Ton	8	2/ 2.00	16.00	67	10.72
Fertilizer (5-10-10)	Cwt.	15.15	2.60	39.39	100	39.39
Limestone	Ton	1.2	6.65	7.98	77	6.14
Rotenone	Lb.	33.3	.12	4.00	87	3.48
Crates	No.	129	.38	49.02	100	49.02
Liners	100	1.29	1.25	1.61	100	1.61
Tape	Spool	1.8	3.06	5.51	100	5.51
Nails	Lb.	4.0	.14	.56	100	.56
Total materials						116.43
CONTRACT WORK HIRED						
Cutting and bunching	Crate	129	1.17	150.93	92	138.86
Cutting only	do.	129	.55	70.90	6	4.25
Total contract work						143.11

1/ Data apply to beds 2 years old and over.   2/ Estimated.

Man labor, power, and machinery used by operation in producing and harvesting asparagus for market, area I-Cl, Gloucester County, New Jersey, 1949 1/

Operation	Size of equipment	Times over	Time per acre once over		Acreage covered	Average time per acre - all farms	
			Man	Power		Man	Tractor
		No.	Hrs.	Hrs.	Pct.	Hrs.	Hrs.
Apply manure, spreader	75-bu.	1.0	3.90	1.95	67	2.61	1.31
Spread lime	10-foot	1.0	.98	.60	50	.49	.30
Fertilize, drill	10-foot	1.0	.68	.44	100	.68	.44
Disk, tandem	7-foot	2.6	.49	.45	100	1.27	1.17
Harrow, spiketooth	15-foot	1.7	.32	.29	100	.54	.49
Cultivate	2-row	7.4	.41	.38	63	1.91	1.77
Cultivate	1-row	7.4	.78	.71	37	2.13	1.94
Hoe and weed	---	2.0	5.00	---	44	4.40	---
Dust	4-row	1.5	.49	.31	87	.64	.40
Total preharvest						14.67	7.82
Cut by hand	---	52.0	1.80	---	2	1.87	---
Cut by hand (contract)	---	52.0	1.80	---	98	91.73	---
Haul to shed, horse	---	52.0	.50	.50	100	26.00	---
Bunch	---	52.0	1.66	---	8	6.91	---
Bunch (contract)	---	52.0	1.66	---	92	79.41	---
Haul to market, truck	1½-ton	52.0	.24	.06	100	12.48	---
Total harvest						218.40	---
Total 2/						233.07	7.82

1/ Data apply to beds 2 years old and over.

2/ In addition, horses were used 26.0 hours, and trucks, 3.12 hours an acre.

ASPARAGUS FOR PROCESSING: RESOURCES USED IN PRODUCTION, AREA I-C1, 1949

The data presented here are based on 14 farms in Gloucester County, New Jersey that produce asparagus for processing. These farms are in type-of-farming area I-C1, a truck-and mixed-farming area in the Atlantic sandy coastal plain.

The farms surveyed averaged 119 total acres, of which 83 were in crops, including 22 in asparagus of producing age. In 1949, the average yield of asparagus on these farms was 2,500 pounds per harvested acre.

Two years are required to establish a field of asparagus. The productive life of a stand is about 15 years. As the age of the bed increases, the yield increases but the quality declines. The cost of establishing a bed in 1949, including the value of unpaid labor used, was about $350 an acre.

Tractors provide most of the power used on farms in this area. They were used for operations listed in the following tables unless otherwise indicated. The D.B.H.P. rating of these tractors ranged from 11 to 27; the most common was about 17.

Materials used and contract work hired, 1949 1/

MATERIALS USED

Item	Unit	Quantity per acre	Price per unit	Cost per acre	Acreage covered	Average cost per acre
		Number	Dollars	Dollars	Percent	Dollars
Manure	Ton	8	2/ 2.00	16.00	47	7.52
Fertilizer (5-10-10)	Cwt.	13.70	2.60	35.65	100	35.65
Limestone	Ton	1.1	6.65	7.32	46	3.37
Rotenone	Lb.	33.9	.12	4.07	83	3.38
Total materials						49.92

CONTRACT WORK HIRED

Item	Unit	Quantity per acre	Price per unit	Cost per acre	Acreage covered	Average cost per acre
Cutting	Lb.	2,500	.025	62.50	97	60.62
Dusting (airplane)	Acre	1.0	1.00	1.00	30	.30
Total contract work						60.92

1/ Data apply to beds 2 years old and over.
2/ Estimated.

Man labor, power, and machinery used by operation in producing and harvesting asparagus for processing, area I-Cl, Gloucester County, New Jersey, 1949 1/

Operation	Size of equipment	Times over	Time per acre once over: Man	Time per acre once over: Power	Acreage covered	Average time per acre - all farms: Man	Average time per acre - all farms: Tractor
		No.	Hrs.	Hrs.	Pct.	Hrs.	Hrs.
Apply manure, spreader	75-bu.	1.0	3.90	1.95	47	1.83	0.92
Spread lime	10-foot	1.0	.98	.60	36	.35	.22
Fertilize, drill	10-foot	1.0	.68	.44	100	.68	.44
Disk, tandem	7-foot	1.7	.49	.45	100	.83	.76
Harrow, spiketooth	10-foot	2.0	.40	.37	67	.54	.50
Cultivate	2-row	8.9	.41	.38	22	.80	.74
Cultivate	1-row	8.9	.78	.71	78	5.41	4.93
Hoe and weed	---	2.0	5.00	---	38	3.80	---
Dust	3-row	1.4	.64	.42	53	.75	.49
Dust, airplane, custom	---	1.0	.64	---	30	.19	---
Total preharvest						15.18	9.00
Cut by hand	---	52.0	1.80	---	3	2.81	
Cut by hand, contract	---	52.0	1.80	---	97	90.79	---
Haul to shed, horse	---	52.0	.50	.50	100	26.00	---
Haul to cannery, truck	1½-ton	52.0	.08	---	100	4.16	---
Total harvest						123.76	---
Total 2/						138.94	9.00

1/ Data apply to beds 2 years old and over.

2/ In addition, horses were used an average of 26.0 hours an acre, and trucks, 10 miles an acre.

BARLEY: RESOURCES USED IN PRODUCTION, AREA I-C1, 1949

The data presented here are based on a 1950 survey of 47 barley-producing farms in New Jersey, Delaware and Maryland. These farms are in type-of-farming area I-C1, a truck-and mixed-farming area of the Atlantic sandy coastal plain.

The farms surveyed averaged 178 total acres, of which 126 were in crops, including 12 in barley. In 1949, the average yield of barley on these farms was 34 bushels an acre.

Tractors provide most of the power used on these farms; they were used for operations listed in the following tables unless otherwise indicated. The D.B.H.P. rating of these tractors ranged from 10 to 28; the more common was about 18.

Materials used and contract work hired, 1949

MATERIALS USED

Item	Unit	Quantity per acre	Price per unit	Cost per acre	Acreage covered	Average cost per acre
		Number	Dollars	Dollars	Percent	Dollars
Own seed	Bu.	2.1	1/ 2.44	5.12	40	2.05
Purchased seed	do.	2.1	2.44	5.12	60	3.07
Manure	Ton	.8	1/ 2.00	16.00	20	3.20
Fertilizer (3-12-6)	Cwt.	4.10	2.00	8.20	99	8.12
Limestone	Ton	.8	6.65	5.32	22	1.17
Twine	Lb.	2.4	.24	.58	5	.03
Total materials						17.64

CONTRACT WORK HIRED

Item	Unit	Quantity per acre	Price per unit	Cost per acre	Acreage covered	Average cost per acre
Combining	Acre	1.0	5.38	5.38	43	2.31
Threshing	Bu.	33.5	.10	3.35	5	.17
Total contract work						2.48

1/ Estimated.

Man labor, power, and machinery used by operation in producing and harvesting barley, area I-Cl, Atlantic sandy coastal plain, 1949

Operation	Size of equipment	Times over	Time per acre once over		Acreage covered	Average time per acre - all farms		
			Man	Power		Man	Tractor	Horse
		No.	Hrs.	Hrs.	Pct.	Hrs.	Hrs.	Hrs.
Spread lime	8-foot	1.0	.97	.60	7	0.07	0.04	---
Apply manure, spreader	75-bu.	1.0	3.75	1.88	20	.75	.38	---
Fertilize, spreader	8-foot	1.0	.68	.44	10	.07	.04	---
Plow, moldboard	2-14 inch	1.0	1.32	1.26	67	.88	.84	---
Plow, moldboard	3-14 inch	1.0	.92	.88	3	.03	.03	---
Plow, moldboard, horses	1-12 inch	1.0	5.84	11.68	4	.23	---	0.47
Disk, tandem	7-foot	2.3	.49	.45	93	1.05	.96	---
Disk, single, horses	7-foot	1.0	2.10	6.30	1	.02	---	.06
Harrow, springtooth	9-foot	1.5	.39	.36	10	.06	.05	---
Harrow, spiketooth	15-foot	1.9	.32	.29	27	.16	.15	---
Harrow, spiketooth, h.	9-foot	1.3	.93	1.87	6	.07	---	.15
Roll	8-foot	1.0	.49	.45	33	.16	.15	---
Roll, horses	8-foot	1.0	.90	1.80	4	.04	---	.07
Seed, drill	8-foot	1.0	.77	.49	93	.72	.46	----
Seed, drill, horses	7-foot	1.0	1.10	2.10	7	.08	---	.15
Total preharvest						4.39	3.10	.90
Combine	6-foot	1.0	1.73	.84	52	.90	.44	---
Combine, contract	6-foot	1.0	1.73	.84	43	.74	.36	---
Bind	7-foot	1.0	1.38	.71	5	.07	.04	---
Shock by hand	---	1.0	1.10	---	5	.06	---	---
Haul bundles	---	1.0	3.50	.63	5	.18	.03	---
Thresh, contract	28-inch	1.0	.74	.35	5	.04	.02	---
Haul grain	---	1.0	.50	.35	18	.09	.06	---
Haul grain, truck	$1\frac{1}{2}$-ton	1.0	.50	.35	82	.41	---	---
Total harvest						2.49	.95	---
Total 1/						6.88	4.05	.90

1/ In addition, truck use averaged 0.20 hour per acre.

BARLEY: RESOURCES USED IN PRODUCTION, AREA IV-F3, 1949

The data presented here are based on a 1950 survey of 44 barley-producing farms in Pennsylvania, Maryland and Virginia. These farms are located in type-of-farming area IV-F3, a dairy-and general-farming area of the northern Piedmont.

The farms surveyed averaged 192 total acres, of which 12 were in barley. In 1949, the average yield of barley in this area was 40 bushels an acre.

Tractors provide most of the power used on these farms; they were used for operations listed in the following tables unless otherwise indicated. The D.B.H.P. rating of these tractors ranged from 10 to 28; the more common was about 18.

Materials used and contract work hired, 1949

MATERIALS USED

Item	Unit	Quantity per acre	Price per unit	Cost per acre	Acreage covered	Average cost per acre
		Number	Dollars	Dollars	Percent	Dollars
Own seed	Bu.	1.9	1/ 2.16	4.10	43	1.76
Purchased seed	do.	1.9	2.16	4.10	57	2.34
Manure	Ton	5	1/ 2.00	10.00	12	1.20
Fertilizer	Cwt.	3.35	2.00	6.70	99	6.63
Limestone	Ton	1.4	6.30	8.82	13	1.15
Total materials						13.08

CONTRACT WORK HIRED

Item	Unit	Quantity per acre	Price per unit	Cost per acre	Acreage covered	Average cost per acre
Threshing	Bu.	40.0	.08	3.20	24	.77
Combining	Acre	1.0	5.00	5.00	15	.75
Total contract work						1.52

1/ Estimated.

Man labor, power, and machinery used by operation in producing and harvesting barley, area IV-F3, northern Piedmont, 1949

Operation	Size of equipment	Times over	Time per acre once over		Acreage covered	Average time per acre - all farms		
			Man	Power		Man	Tractor	Horse
		No.	Hrs.	Hrs.	Pct.	Hrs.	Hrs.	Hrs.
Apply manure, spreader	75-bu.	1.0	2.50	1.25	12	.30	.15	----
Plow, moldboard	2-14 inch	1.0	1.43	1.36	49	.70	.67	---
Disk, tandem	7-foot	2.6	.55	.52	96	1.37	1.30	---
Disk, single, horses	7-foot	2.8	2.62	5.25	4	.29	---	.59
Harrow, springtooth	10-foot	2.3	.44	.42	34	.34	.33	---
Harrow, spiketooth	15-foot	2.3	.26	.25	13	.08	.08	---
Seed, drill	8-foot	1.0	.77	.49	85	.65	.42	---
Seed, drill, horses	8-foot	1.0	1.10	2.10	15	.16	---	.32
Total preharvest						3.89	2.95	.91
Combine	6-foot	1.0	1.66	.84	59	.98	.50	---
Combine, contract	6-foot	1.0	1.66	.84	15	.25	.13	---
Bind	8-foot	1.0	1.38	.71	22	.30	.16	---
Bind, horses	8-foot	1.0	.91	1.74	4	.04	---	.07
Shock by hand	---	1.0	1.10	---	26	.29	---	---
Haul bundles	---	1.0	3.50	.63	21	.74	.13	---
Haul bundles, horses	---	1.0	3.50	3.30	5	.18	---	.16
Thresh	28-inch	1.0	.74	.35	2	.01	.01	---
Thresh, contract	28-inch	1.0	.74	.35	24	.18	.08	---
Haul grain	---	1.0	.42	.20	100	.42	.20	---
Total harvest						3.39	1.21	.23
Total						7.28	4.16	1.14

BARLEY: RESOURCES USED IN PRODUCTION, AREA IV-F6, 1949

The data presented here are based on a 1950 survey of 31 barley-producing farms in west central Pennsylvania. These farms are in type-of-farming area IV-F6, a dairy- and general-farming area in the Allegheny Plateau.

The farms surveyed averaged 221 total acres, of which 130 were in crops, including 8 in barley. In 1949, the average yield of barley on these farms was 36 bushels an acre.

Tractors provide most of the power used on farms in this area. They were used for operations listed in the following tables unless otherwise indicated. The D.B.H.P. rating of these tractors ranged from 10 to 26; the most common was about 18.

Materials used and contract work hired, 1949

MATERIALS USED

Item	Unit	Quantity per acre	Price per unit	Cost per acre	Acreage covered	Average cost per acre
		Number	Dollars	Dollars	Percent	Dollars
Seed 1/	Bu.	2.0	2.60	5.20	100	5.20
Manure	Ton	7	2/2.00	14.00	24	3.36
Mixed fertilizer	Cwt.	2.60	2.40	6.24	98	6.12
Lime	Ton	1.8	4.80	8.64	5	.43
Twine	Lb.	3.1	.24	.74	43	.32
Total materials						15.43

CONTRACT WORK HIRED

Item	Unit	Quantity per acre	Price per unit	Cost per acre	Acreage covered	Average cost per acre
Combining	Acre	1.0	5.20	5.20	20	1.04
Threshing	Bu.	36	.08	2.88	28	.81
Total contract work						1.85

1/ Approximately 47 percent of the farmers in the area purchased seed barley.
2/ Estimated.

Man labor, power, and machinery used by operation in producing and harvesting barley, area IV-F6, west central Pennsylvania, 1949

Operation	Size of equipment	Times over	Time per acre once over		Acreage covered	Average time per acre - all farms		
			Man	Power		Man	Tractor	Horse
		No.	Hrs.	Hrs.	Pct.	Hrs.	Hrs.	Hrs.
Apply manure, spreader	75-bu.	1.0	4.20	1.91	23	0.97	0.44	---
Apply manure, horses-sp.	65-bu.	1.0	6.47	11.76	1	.06	---	0.12
Plow, moldboard	3-14 inch	1.0	1.26	1.21	23	.29	.28	---
Plow, moldboard	2-14 inch	1.0	1.88	1.80	51	.96	.92	---
Plow, moldboard	2-12 inch	1.0	2.44	2.33	13	.32	.30	---
Plow, moldboard, horses	1-12 inch	1.0	8.80	17.60	10	.88	---	1.76
Disk, tandem	7-foot	2.7	.46	.44	43	.53	.51	---
Cultipack	8-foot	1.5	.44	.40	41	.27	.25	---
Harrow, spiketooth	12-foot	3.3	.43	.39	60	.85	.77	---
Harrow, spiketooth, h.	8-foot	4.5	.56	1.62	7	.18	---	.51
Seed, drill	8-foot	1.0	.67	.61	57	.38	.35	---
Seed, drill, horses	5-foot	1.0	1.31	2.51	43	.56	---	1.08
Total preharvest						6.25	3.82	3.47
Combine	6-foot	1.0	1.16	.73	37	.43	.27	---
Combine, contract	6-foot	1.0	1.16	.73	20	.23	.15	---
Haul from combine, truck	1½-ton	1.0	.54	.19	57	.31	---	---
Bind	7-foot	1.0	1.18	.74	43	.51	.32	---
Shock by hand	---	1.0	2.33	---	43	1.00	---	---
Haul bundles	---	1.0	4.22	1.17	37	1.56	.43	---
Haul bundles, horses	---	1.0	3.75	3.37	6	.22	---	.20
Thresh	---	1.0	3.25	.53	15	.49	.08	---
Thresh, contract	---	1.0	3.25	.53	28	.91	.15	---
Haul grain	---	1.0	.65	.17	43	.30	.07	---
Total harvest						5.96	1.47	.20
Total 1/						12.21	5.29	3.67

1/ In addition, trucks were used an average of .11 hour an acre.

LIMA BEANS FOR MARKET: RESOURCES USED IN PRODUCTION, AREA I-C1, 1949

The data presented here are based on a survey made in 1950 of 13 farms in New Jersey and Maryland that produce lima beans for fresh consumption. These farms are in type-of-farming area I-C1, a truck-and mixed-farming area in the Atlantic sandy coastal plain.

The farms surveyed averaged 257 total acres per farm. In 1949, 118 acres were in crops, including 38 in lima beans for fresh consumption. In 1949 the average yield of lima beans on these farms was 89 bushels per acre.

Tractors provide most of the power used on farms in this area. They were used for operations listed in the following tables unless otherwise indicated. The D.B.H.P. rating of these tractors ranged from 10 to 23; the most common was about 16.

Materials used and contract work hired, 1949

MATERIALS USED

Item	Unit	Quantity per acre	Price per unit	Cost per acre	Acreage covered	Average cost per acre
		Number	Dollars	Dollars	Percent	Dollars
Purchased seed	Lb.	74	0.38	28.12	100	28.12
Rye	Bu.	1.5	2.00	3.00	88	2.64
Fertilizer (5-10-5)	Cwt.	14.00	2.30	32.20	100	32.20
Limestone	Ton	1.5	6.65	9.98	40	3.99
Dust	Lb.	97	.13	12.61	100	12.61
Hampers	No.	90	.25	22.50	100	22.50
Total materials						102.06

CONTRACT WORK HIRED

Item	Unit	Quantity per acre	Price per unit	Cost per acre	Acreage covered	Average cost per acre
Dusting	Acre	1.0	112.00	2.00	40	.80
Picking	Bu.	89.0	.55	48.95	100	48.95
Hauling	Bu.	89.0	.20	17.80	26	4.63
Total contract work						54.38

1/ Does not include materials used.

Man labor, power, and machinery used by operation in producing and harvesting lima beans for fresh consumption, area I-C1, Atlantic sandy coastal plain, 1949

Operation	Size of equipment	Times over	Time per acre once over		Acreage covered	Average time per acre - all farms	
			Man	Power		Man	Tractors
		No.	Hrs.	Hrs.	Pct.	Hrs.	Hrs.
Cover crop:							
Plow for cover crop	5-14 inch	1.0	0.75	0.71	31	.23	.22
Disk for cover crop	7-foot	2.4	.49	.45	88	1.04	.95
Seed cover crop, drill	8-foot	1.0	.77	.49	77	.59	.38
Seed cover crop, hand	---	1.0	1.00	---	11	.11	---
Preharvest:							
Spread lime	8-foot	1.0	.98	.60	17	.17	.10
Fertilize	8-foot	1.0	.68	.44	48	.33	.21
Plow, moldboard	2-14 inch	1.0	1.32	1.26	60	.79	.76
Plow, moldboard	3-14 inch	1.0	.92	.88	9	.08	.08
Plow, moldboard	5-14 inch	1.0	.75	.71	31	.23	.22
Disk, tandem	7-foot	4.5	.49	.45	100	2.20	2.02
Disk and harrow	7-foot	1.0	.52	.47	21	.11	.10
Harrow, spiketooth	15-foot	1.0	.32	.29	79	.25	.23
Plant	2-row	1.0	1.16	.70	65	.75	.46
Plant	4-row	1.0	.60	.36	35	.21	.13
Cultivate	2-row	4.0	.82	.75	75	2.46	2.25
Cultivate	4-row	4.0	.49	.45	25	.49	.45
Hoe and weed	---	1.0	8.00	---	55	4.40	---
Irrigate, sprinkler	---	2.0	1.80	3.00	21	.76	1.26
Dust, surface	4-row	2.2	.63	.54	60	.83	.71
Dust, airplane, contract	---	2.5	.14	---	40	.14	---
Total preharvest						16.17	10.53
Pick by hand, contract	---	1.0	90.00	---	100	90.00	---
Sort, pack and load	---	1.0	10.00	---	100	10.00	---
Haul, truck	2-ton	1.0	1.90	.95	74	1.41	---
Haul, truck, contract	---	1.0	1.90	.95	26	.49	---
Total harvest						101.90	---
Total 1/						118.07	10.53

1/ In addition, trucks were used an average of 0.95 hour an acre. Airplanes were used to dust 40 percent of the acreage and water was applied by sprinklers to 21 percent of the acreage.

LIMA BEANS FOR PROCESSING: RESOURCES USED IN PRODUCTION, AREA I-C1, 1949

The data presented here are based on a survey made in 1950 of 15 farms in New Jersey, Delaware and Maryland that produce lima beans for processing. These farms are in type-of-farming area I-C1, a truck-and mixed-farming area in the Atlantic sandy coastal plain.

The farms surveyed averaged 227 total acres per farm. In 1949, 174 acres were in crops, including 41 in lima beans for processing. The average yield of lima beans on these farms was 1,180 pounds per acre.

Tractors provide most of the power used on farms in this area. They were used for operations listed in the following tables unless otherwise indicated. The D.B.H.P. rating of these tractors ranged from 11 to 26; the most common was about 17.

Materials used and contract work hired, 1949

MATERIALS USED

Item	Unit	Quantity per acre	Price per unit	Cost per acre	Acreage covered	Average cost per acre
		Number	Dollars	Dollars	Percent	Dollars
Purchased seed	Lb.	44	0.18	7.92	100	7.92
Rye	Bu.	1.5	1.70	2.55	48	1.22
Vetch	Lb.	20.0	.25	5.00	19	.95
Manure	Ton	7	1/ 2.00	14.00	30	4.20
Fertilizer (5-10-5)	Cwt.	6.30	2.15	13.54	100	13.54
Limestone	Ton	1.5	6.65	9.98	6	.60
Dust 2/	Lb.	40	.12	4.80	67	3.22
Total materials						31.65

CONTRACT WORK HIRED

Item	Unit	Quantity per acre	Price per unit	Cost per acre	Acreage covered	Average cost per acre
Dusting (airplane)	Acre	1.0	3/ 3.00	3.00	13	.39
Dusting	do.	1.5	3/ 4.00	6.00	9	.54
Harvesting	do.	1.0	7.00	7.00	17	1.19
Total contract work						2.12

1/ Estimated.

2/ Does not include dust applied by custom operators.

3/ Includes materials used.

Man labor, power, and machinery used by operation in producing and harvesting lima beans for processing, area I-C1, Atlantic sandy coastal plain, 1949

Operation	Size of equipment	Times over	Time per acre once over		Acreage covered	Average time per acre - all farms	
			Man	Power		Man	Tractor
		No.	Hrs.	Hrs.	Pct.	Hrs.	Hrs.
Cover crop:							
Disk, tandem	7-foot	1.0	0.49	0.45	48	0.24	0.22
Seed cover crop, drill	8-foot	1.0	.77	.49	48	.37	.24
Preharvest:							
Apply manure, spreader	90-bu.	1.0	3.65	1.82	30	1.10	.55
Spread lime	8-foot	1.0	.98	.60	6	.06	.04
Fertilize, spreader	8-foot	1.0	.68	.44	22	.15	.10
Plow, moldboard	3-12 inch	1.0	1.08	1.03	22	.24	.23
Plow, moldboard	2-14 inch	1.0	1.32	1.26	70	.92	.88
Disk, tandem	7-foot	2.2	.49	.45	98	1.06	.97
Disk and harrow	7-foot	1.2	.52	.47	54	.33	.30
Harrow, spiketooth	15-foot	1.0	.39	.36	38	.15	.14
Plant	2-row	1.0	.95	.70	89	.85	.62
Plant, horses	2-row	1.0	1.05	1.81	11	.12	---
Dust	4-row	1.6	.52	.50	67	.56	.54
Dust, contract	4-row	1.5	.52	.50	9	.07	.07
Dust, airplane, contract	---	1.0	.12	---	13	.02	---
Cultivate	2-row	4.0	.70	.64	100	2.80	2.56
Hoe and weed	---	1.0	3.40	---	41	1.39	---
Total preharvest						10.43	7.46
Cut vines	2-row	1.0	.67	.67	83	.56	.56
Load and haul	---	1.0	8.63	2.88	27	2.33	.78
Load and haul, truck	1½-ton	1.0	8.63	2.88	56	4.83	---
Cut and vine, contract	---	1.0	4.00	2.00	17	.68	.34
Total harvest 1/						8.40	1.68
Total 2/						18.83	9.14

1/ Does not include vining by stationary viners, hauling vines back to the fields or spreading vines.

2/ In addition horse work averaged 0.20 hour an acre, and truck use averaged 1.61 hours an acre.

CANTALOUPES: RESOURCES USED IN PRODUCTION, AREA I-C1, 1949

The data presented here are based on 19 cantaloupe-producing farms in Wicomico County, Maryland. These farms are in type-of-farming area I-C1, a truck-and mixed-farming area of the Atlantic sandy coastal plain.

The farms surveyed averaged 77 total acres, of which 60 were in crops, including 3.7 in cantaloupes. In 1949, the average yield of cantaloupes on these farms was the equivalent of 100 jumbo crates an acre.

Tractors provide most of the power used on farms in this area. They were used for operations listed in the following tables unless otherwise indicated. The D.B.H.P. rating of these tractors ranged from 10 to 27; the most common was about 16.

Materials used and contract work hired, 1949 1/

MATERIALS USED

Item	Unit	Quantity per acre	Price per unit	Cost per acre	Acreage covered	Average cost per acre
		Number	Dollars	Dollars	Percent	Dollars
Seed 2/	Lb.	4.0	2.00	8.00	100	8.00
Manure	Ton	8	3/2.00	16.00	93	14.88
Fertilizer (5-10-5)	Cwt.	11.55	2.15	24.83	100	24.83
Limestone	Ton	.6	6.65	3.99	26	1.04
Dust	Lb.	60	.11	6.60	37	2.44
Crates	No.	176	.36	63.00	83	52.29
Baskets	do.	100	.34	34.00	11	3.74
Total materials						107.22

1/ Work done on a custom or contract basis was negligible.
2/ Approximately 90 percent of the farmers purchased their cantaloupe seed.
3/ Estimated.

Man labor, power, and machinery used by operation in producing and harvesting cantaloupes, area I-Cl, Wicomico County, Maryland, 1949

Operation	Size of equipment	Times over	Time per acre once over		Acreage covered	Average time per acre - all farms		
			Man	Power		Man	Tractor	Horse
		No.	Hrs.	Hrs.	Pct.	Hrs.	Hrs.	Hrs.
Apply manure, spreader	75-bu.	1.0	4.24	2.12	80	3.39	1.70	---
Apply manure, wagon	---	1.0	8.48	2.12	9	.76	.19	---
Apply manure, truck	1½-ton	1.0	8.48	2.12	4	.34	---	---
Spread lime	8-foot	1.0	.98	.63	13	.13	.08	---
Spread lime, horses	8-foot	1.0	1.26	1.64	4	.05	---	07
Plow, moldboard	2-14 inch	1.0	1.32	1.26	98	1.29	1.23	---
Disk, tandem	7-foot	1.8	.49	.45	100	.86	.81	---
Harrow, spiketooth	10-foot	1.3	.40	.37	72	.37	.35	---
Mark rows, horse	3-row	1.0	.52	.52	18	.09	---	.09
Fertilize	1-row	1.0	.68	.46	24	.16	.11	---
Fertilize, horses	1-row	1.0	.85	1.20	25	.21	---	.30
Plant	1-row	1.0	2.62	1.31	62	1.62	.81	---
Plant, horses	1-row	1.0	2.73	2.73	38	1.04	---	1.04
Replant	1-row	1.0	2.62	1.31	3	.08	.04	---
Replant, horses	1-row	1.0	2.73	2.73	10	.27	---	.27
Replant, by hand	---	1.0	4.00	---	3	.12	---	---
Cultivate	1-row	4.3	.92	.84	52	2.06	1.88	---
Cultivate, horses	1-row	4.3	1.36	2.05	64	3.74	---	5.64
Side dress	1-row	1.0	1.15	1.05	80	.92	.84	---
Thin by hand	---	1.0	7.00	---	100	7.00	---	---
Hoe and weed	---	1.6	6.00	---	100	9.60	---	---
Dust	3-row	2.2	.55	.37	37	.45	.30	---
Total preharvest						34.55	8.34	7.41
Pick by hand	---	10.0	3.70	---	100	37.00	---	---
Haul to barn, truck	1½-ton	10.0	.60	.15	100	6.00	---	---
Nail crates	---	10.0	.60	---	61	3.66	---	---
Sort and pack by hand	---	10.0	3.60	---	83	29.88	---	---
Haul to market, truck	1½-ton	10.0	1.00	.30	94	9.40	---	---
Total harvest						85.94	---	---
Total 1/ 2/						120.49	8.34	7.41

1/ In addition, trucks were used an average of 4.4 hours an acre.

2/ Includes a small amount of work done on a custom or contract basis.

CLOVER HAY: RESOURCES USED IN PRODUCTION, AREA IV-F4, 1949

The data presented here are based on a survey made on approximately 33 farms in 1950, in northeastern Ohio and northwestern Pennsylvania. These farms are in type-of-farming area IV-F4, a dairy-and general-farming area on the Lake Erie border. Approximately 100 percent of the clover in this area is planted without a nurse crop. Farmers in the area reported that hay seedings last about 2 years. Consequently the annual charges are based upon a 2-year stand. The clover seeded in this area is usually planted with timothy.

The farms surveyed averaged 170 total acres. In 1949, 104 acres were in cropland, including 19 acres of clover cut for hay. The average yield of hay was 2.2 tons per acre.

Tractors provide most of the power used on these farms. They were used for operations listed below unless otherwise indicated. The D.B.H.P. rating of these tractors ranged from 11 to 26; the most common was 19.

Materials used and contract work hired, 1949

MATERIALS USED

Item	Unit	Quantity per acre	Price per unit	Cost per acre	Acreage covered	Average cost per acre
		Number	Dollars	Dollars	Percent	Dollars
Establish seeding, total:						
Red clover seed	Lb.	8	0.58	4.64	100	4.64
Timothy seed	do.	5	.30	1.50	100	1.50
Alfalfa seed	do.	4	.65	2.60	28	.73
Alsike clover seed	do.	3	.49	1.47	24	.35
Ladino clover seed	do.	1	2.32	2.32	14	.32
Manure	Ton	8	[1] 2.00	16.00	32	5.12
Mixed fertilizer	Cwt.	2.90	2.20	6.38	97	6.19
Lime	Ton	1.9	3.85	7.32	94	6.88
Total for establishment						25.73
Annual charge to clover	---	---	---	---	---	12.86
Manure	Ton	8	[1] 2.00	16.00	29	4.64
Baler, twine	Lb.	8.7	.32	2.78	44	1.22
Total materials used						18.72

CONTRACT WORK HIRED

Baling	Bale	58	.10	5.80	14	.81
Total contract work						.81

[1] Estimated.

Man labor, power, and machinery used by operation in producing and harvesting clover hay, area IV-F4, northeastern Ohio and northwestern Pennsylvania, 1949

Operation	Size of equipment	Times over	Time per acre once over		Acreage covered	Average time per acre - all farms		
			Man	Power		Man	Tractor	Horse
		No.	Hrs.	Hrs.	Pct.	Hrs.	Hrs.	Hrs.
Establish seeding, total	---	---	----	---	---	7.94	4.55	2.96
Establish seeding, annual	---	---	---	---	1/	3.97	2.28	1.48
Apply manure, spreader	75 bu.	1.0	5.72	2.00	29	1.66	.58	---
Total preharvest						5.63	2.86	1.48
Mow	7-foot	1.3	.68	.60	80	.70	.62	---
Mow, horses	5-foot	1.3	1.43	2.62	20	.37	---	.68
Rake, side-delivery	---	1.3	.56	.51	78	.57	.51	---
Rake, side-delivery, h.	---	1.3	.78	1.50	22	.22	---	.43
Haul loose hay	---	1.3	4.68	.81	49	2.98	.51	---
Haul loose hay, h.	---	1.3	4.44	6.45	7	.40	---	.59
Bale, pick-up	---	1.3	1.08	.72	30	.42	.28	---
Bale, pick-up, contract	---	1.3	.64	.56	14	.12	.10	---
Haul baled hay	---	1.3	3.59	.47	44	2.05	.27	---
Total harvest						7.83	2.29	1.70
Total						13.46	5.15	3.18

1/ In this area approximately 100 percent of the farms seeded clover hay without a nurse crop, and the average life of the crop is 2 years.

CLOVER, MIXED HAY: RESOURCES USED IN PRODUCTION, AREA IV-F6, 1949

The data presented here are based on a survey made on approximately 32 farms in 1950, in west central Pennsylvania. These farms are in type-of-farming area IV-F6, a dairy-and general-farming area in the Allegheny Plateau. Approximately 100 percent of the clover in this area is planted with a nurse crop. Farmers in the area reported that hay seedings lasted about 2 years. As a result, one-half of the man labor, power, machinery, and materials used jointly in establishing the hay seeding and the nurse crop is charged to the hay crop, and one-half of this is charged annually to the hay crop. All additional materials, such as clover, alfalfa, and grass seeds, and man labor, power, and machinery used directly in establishing the hay seeding are prorated to the annual charges for the hay crops according to the estimated life of the stand. Most farmers in the area seed mixed clovers in combination with timothy or alfalfa.

The farms surveyed averaged 285 total acres. In 1949, 105 acres were in crops, including 11 acres of clover cut for hay. The average yield of hay was 2.2 tons per acre.

Tractors provide most of the power used on these farms. They were used for operations listed in the following tables unless otherwise indicated. The D.B.H.P. rating of these tractors ranged from 12 to 26; the most common was about 18.

Materials used and contract work hired, 1949

MATERIALS USED

Item	Unit	Quantity per acre	Price per unit	Cost per acre	Acreage covered	Average cost per acre
		Number	Dollars	Dollars	Percent	Dollars
Establish seeding, total:						
Red clover seed	Lb.	7	0.58	4.06	100	4.06
Timothy seed	Lb.	6	.31	1.86	93	1.73
Alfalfa seed	Lb.	5	.65	3.25	46	1.50
Ladino clover seed	Lb.	1	2.50	2.50	30	.75
Alsike clover seed	Lb.	4	.40	1.60	23	.37
Manure	Ton	8	1/ 2.00	16.00	50	2/ 4.00
Mixed fertilizer	Cwt.	2.75	2.20	6.05	48	2/ 1.45
Phosphate fertilizer (20%)	Cwt.	2.70	1.30	3.51	33	2/ 1.16
Limestone	Ton	1.7	4.80	8.16	79	3.22
Total for establishment						18.24
Annual charge to clover	---	---	---	---	---	9.12
Manure	Ton	8	1/ 2.00	16.00	23	3.68
Phosphate fertilizer (20%)	Cwt.	2.70	1.30	3.51	11	.39
Baler twine	Lb.	5.2	.25	1.30	27	.35
Total annual charge						13.54

CONTRACT WORK HIRED

Item	Unit	Quantity per acre	Price per unit	Cost per acre	Acreage covered	Average cost per acre
Baling	Bale	62.4	.12	7.48	12	.90
Total contract work						.90

1/ Estimated.

2/ Allocated one-half the cost to the nurse crop.

Man labor, power, and machinery used by operation in producing and harvesting mixed clover hay, area IV-F6, west central Pennsylvania, 1949

Operation	Size of equipment	Times over	Time per acre once over		Acreage covered	Average time per acre - all farms		
			Man	Power		Man	Tractor	Horse
		No.	Hrs.	Hrs.	Pct.	Hrs.	Hrs.	Hrs.
Establish seeding:								
Total clover 1/	---	---	---	---	---	4.41	2.00	2.22
Annual 2/	---	---	---	----	---	2.20	1.00	1.11
Apply manure, spreader	75 bu.	1.0	5.18	1.47	23	1.19	.34	---
Fertilize, spreader	---	1.0	3.30	1.50	11	.36	.16	---
Total preharvest						3.75	1.50	1.11
Mow	7-foot	1.4	.68	.60	73	.69	.61	---
Mow, horses	6-foot	1.4	1.76	3.07	27	.66	---	1.16
Rake, side-delivery	---	1.4	.49	.45	72	.50	.45	---
Rake, dump, horses	---	1.4	.95	1.56	28	.37	---	.61
Haul loose hay	---	1.4	9.45	1.49	42	5.56	.88	---
Haul loose hay, truck	1½ ton	1.4	6.49	1.13	17	1.55	---	---
Haul loose hay, horses	---	1.4	6.35	5.31	15	1.33	---	1.11
Bale, pick-up	---	1.4	1.00	.59	15	.21	.12	---
Bale, pick-up, contract	---	1.4	.44	.39	12	.07	.07	---
Haul baled hay	---	1.4	2.94	.38	7	.29	.04	---
Haul baled hay, truck	1½ ton	1.4	3.27	.47	19	.87	---	---
Total harvest						12.10	2.17	2.88
Total						15.85	3.65	3.99

1/ In this area approximately 100 percent of the farmers seeded hay crops with a nurse crop. As a result, the total given here is one-half of the total required jointly to establish the seeding and the nurse crop.

2/ The estimated average life of mixed clover hay seedings in this area is two years. The labor, power and machinery charged to establishing the seeding are prorated annually to the hay crops according to the average life of seeding.

CORN FOR GRAIN: RESOURCES USED IN PRODUCTION, AREA I-C1, 1949

The data presented here are based on a 1950 survey of 49 corn-producing farms in New Jersey, Delaware and Maryland. These farms are in type-of-farming area I-C1, a truck-and mixed-farming area of the Atlantic sandy coastal plain.

The farms surveyed averaged 189 total acres, of which 123 were in crops, including 34 in corn for grain. In 1949, the average yield of corn in this area was 39 bushels an acre.

Tractors provide most of the power used on these farms; they were used for operations listed in the following tables unless otherwise indicated. The D.B.H.P. rating of these tractors ranged from 7 to 27; the more common was about 17.

Materials used and contract work hired, 1949

MATERIALS USED

Item	Unit	Quantity per acre	Price per unit	Cost per acre	Acreage covered	Average cost per acre
		Number	Dollars	Dollars	Percent	Dollars
Own seed	Bu.	.15	1/ 4.62	.69	8	.06
Purchased seed	do.	.15	9.28	1.39	92	1.28
Manure	Ton	4	1/ 2.00	8.00	57	4.56
Fertilizer (5-10-10)	Cwt.	4.20	2.30	9.66	91	8.79
Limestone	Ton	1.1	6.65	7.32	55	4.03
Spray (2-4-0)	Gal.	.2	6.50	1.30	3	.04
Total materials						18.76

CONTRACT WORK HIRED

Item	Unit	Quantity per acre	Price per unit	Cost per acre	Acreage covered	Average cost per acre
Dusting (airplane)	Acre	1.0	1/ 3.00	3.00	3	.09
Picking	do.	1.0	6.04	6.04	21	1.27
Total contract work						1.36

1/ Estimated.
2/ Includes materials used.

Man labor, power, and machinery used by operation in producing and harvesting corn for grain, area I-C1, Atlantic sandy coastal plain, 1949

Operation	Size of equipment	Times over	Time per acre once over		Acreage covered	Average time per acre - all farms	
			Man	Power		Man	Tractor
		No.	Hrs.	Hrs.	Pct.	Hrs.	Hrs.
Apply manure, spreader	90-bu.	1.0	2.24	1.12	27	.60	.30
Apply manure, loader-sp.	90-bu.	1.0	1.57	1.57	30	.47	.47
Fertilize, drill	7-foot	1.0	.68	.44	20	.14	.09
Spread lime	8-foot	1.0	.98	.60	5	.05	.03
Plow, moldboard	3-14 inch	1.0	1.32	1.26	71	.94	.89
Plow, moldboard	2-14 inch	1.0	.92	.88	29	.27	.25
Disk, tandem	7-foot	2.2	.49	.45	85	.92	.84
Harrow, spiketooth	15-foot	1.8	.32	.29	45	.26	.23
Harrow, springtooth	10-foot	1.8	.39	.36	15	.11	.10
Plant	4-row	1.0	.60	.36	18	.11	.06
Plant	2-row	1.0	.94	.70	62	.58	.43
Plant, horses	2-row	1.0	1.05	1.81	20	.21	---
Cultivate	4-row	3.5	.46	.42	18	.29	.26
Cultivate	2-row	3.5	.64	.59	82	1.84	1.69
Weed by hand	---	1.0	3.00	---	18	.54	---
Dust, airplane, contract	---	1.0	.20	---	3	.01	---
Spray	8-row	1.0	.46	.29	3	.01	.01
Total preharvest						7.35	5.65
Cut by hand and shock	---	1.0	7.30	---	3	.22	---
Bind and shock	1-row	1.0	1.28	1.18	3	.04	.04
Husk from shock	---	1.0	18.90	---	6	1.13	---
Haul from shock	---	1.0	2.90	.75	6	.17	.04
Pick and haul, horses	---	1.0	8.53	12.28	21	1.79	---
Pick by machine	2-row	1.0	.86	.79	16	.14	.13
Pick by machine, custom	2-row	1.0	.86	.79	9	.08	.07
Pick by machine	1-row	1.0	1.28	1.18	36	.46	.42
Pick by machine, custom	1-row	1.0	1.28	1.18	12	.15	.14
Haul from picker	---	1.0	1.35	.60	73	.99	.44
Total harvest						5.17	1.28
Total 1/						12.52	6.93

1/ In addition, horses were used 2.94 hours an acre.

CORN FOR GRAIN: RESOURCES USED IN PRODUCTION, AREA IV-F3, 1949

The data presented here are based on a 1950 survey of 68 corn-producing farms in Pennsylvania, Maryland and Virginia. These farms are in type-of-farming area IV-F3, a dairy-and general-farming area of the northern Piedmont.

The farms surveyed averaged 163 total acres, of which 22 were in corn for grain. In 1949, the average yield of corn in this area was 42 bushels an acre.

Tractors provide most of the power used on these farms; they were used for operations listed in the following tables unless otherwise indicated. The D.B.H.P. rating of these tractors ranged from 9 to 26; the more common was about 18.

Materials used and contract work hired, 1949

MATERIALS USED

Item	Unit	Quantity per acre	Price per unit	Cost per acre	Acreage covered	Average cost per acre
		Number	Dollars	Dollars	Percent	Dollars
Own seed corn	Bu.	.13	1/ 5.35	.70	2	.01
Purchased seed corn	do.	.13	10.70	1.39	98	1.36
Manure	Ton	8	1/ 2.00	16.00	63	10.08
Fertilizer (3-12-6)	Cwt.	3.35	2.00	6.70	92	6.16
Limestone	Ton	1.27	6.30	8.00	30	2.40
Spray (2,4-D) 2/	Pt.	1.0	1.00	1.00	3	.03
Total materials						20.04

CONTRACT WORK HIRED

Item	Unit	Quantity per acre	Price per unit	Cost per acre	Acreage covered	Average cost per acre
Spraying	Acre	1.0	3/ 3.60	3.60	2	.07
Picking	do.	1.0	5.79	5.79	18	1.04
Total contract work						1.11

1/ Estimated.

2/ This does not include materials applied on a custom basis.

3/ Includes materials used.

Man labor, power, and machinery used by operation in producing and harvesting corn for grain, area IV-F3, northern Piedmont, 1949

Operation	Size of equipment	Times over	Time per acre: once over		Acreage covered	Average time per acre - all farms		
			Man	Power		Man	Tractor	Horse
		No.	Hrs.	Hrs.	Pct.	Hrs.	Hrs.	Hrs.
Apply manure, spreader	75-bu.	1.0	4.18	2.09	30	1.25	0.63	---
Apply manure, loader-sp.	75-bu.	1.0	3.22	2.93	10	.32	.29	---
Apply manure, horses-sp.	75-bu.	1.0	5.02	10.03	23	1.15	---	2.31
Plow, moldboard	3-14 in.	1.0	2.76	2.64	8	.22	.21	---
Plow, moldboard	2-14 in.	1.0	1.43	1.36	85	1.22	1.16	---
Plow, moldboard	1-14 in.	1.0	1.03	.99	3	.03	.03	---
Plow, moldboard, horses	1-14 in.	1.0	5.56	11.12	4	.22	---	.44
Disk, tandem	7-foot	2.4	.55	.52	97	1.28	1.21	---
Harrow, spiketooth	15-foot	2.7	.26	.25	90	.63	.61	---
Harrow, spiketooth, h.	10-foot	2.9	1.31	2.08	7	.27	---	.42
Plant	4-row	1.0	.62	.37	7	.04	.03	---
Plant	2-row	1.0	.94	.72	39	.37	.28	---
Plant, horses	2-row	1.0	1.05	1.81	54	.57	---	.98
Fertilize	7-foot	1.0	.68	.44	7	.05	.03	---
Cultivate	4-row	3.0	.47	.43	7	.10	.09	---
Cultivate	2-row	3.1	.64	.59	76	1.50	1.39	---
Cultivate, horses	1-row	3.1	1.65	3.15	17	.87	---	1.66
Hoe and weed	---	1.6	3.00	---	3	.14	---	---
Spray	---	1.0	.35	.26	3	.01	.01	---
Spray, contract	---	1.0	.35	.26	2	.01	.01	---
Total preharvest						10.25	5.98	5.81
Pick by machine	2-row	1.0	.86	.79	14	.12	.11	---
Pick by machine, custom	2-row	1.0	.86	.79	12	.10	.09	---
Pick by machine	1-row	1.0	1.28	1.18	24	.31	.29	---
Pick by machine, custom	1-row	1.0	1.28	1.18	6	.08	.07	---
Pick by hand and haul	---	1.0	8.53	12.28	4	.34	---	.49
Cut by hand and shock	---	1.0	7.30	---	40	2.92	---	---
Husk from shock	---	1.0	18.90	---	37	6.99	---	---
Haul to shredder, horses	---	1.0	6.25	6.25	3	.19	---	.19
Shred	---	1.0	3.00	1.38	3	.09	.04	---
Haul from picker	---	1.0	1.35	.60	56	.76	.34	---
Haul from shock, horse	---	1.0	3.10	4.50	37	1.15	---	1.66
Total harvest						13.05	.94	2.34
Total						23.30	6.92	8.15

CORN FOR GRAIN: RESOURCES USED IN PRODUCTION, AREA IV-F4, 1949

The data presented here are based on a survey made on approximately 36 farms in 1950, in northeastern Ohio and northwestern Pennsylvania. These farms are in type-of-farming area IV-F4, a dairy-and general-farming area on the Lake Erie border.

The farms surveyed averaged 152 total acres. In 1949, 94 acres were in cropland, including 22 acres in corn. The average yield of corn was 58 bushels per acre.

Tractors provide most of the power used on these farms. They were used for operations listed in the following tables unless otherwise indicated. The D.B.H.P. rating of these tractors ranged from 10 to 34; the most common was about 16.

Materials used and contract work hired, 1949

MATERIALS USED

Item	Unit	Quantity per acre	Price per unit	Cost per acre	Acreage covered	Average cost per acre
		Number	Dollars	Dollars	Percent	Dollars
Own seed	Bu.	.17	5.40	0.92	8	0.07
Purchased seed	do.	.17	9.65	1.64	92	1.51
Manure	Ton	9	1/ 2.00	18.00	60	10.80
Mixed fertilizer	Cwt.	2.65	2.30	6.10	100	6.10
Lime	Ton	1.3	2/ 4.50	5.85	12	.70
Spray (2,4-D)	Gal.	.06	8.00	.48	17	.08
Twine	Lb.	2.4	.25	.60	16	.10
Total materials						19.36

CONTRACT WORK HIRED

Picking	Acre	1.0	7.50	7.50	16	1.20
Total contract work						1.20

1/ Estimated.

2/ Price includes cost of spreading.

Man labor, power, and machinery used by operation in producing and harvesting corn, area IV-F4, northeastern Ohio and northwestern Pennsylvania, 1949

Operation	Size of equipment	Times over	Time per acre once over		Acreage covered	Average time per acre - all farms		
			Man	Power		Man	Tractor	Horse
		No.	Hrs.	Hrs.	Pct.	Hrs.	Hrs.	Hrs.
Apply manure, spreader	75-bu.	1.0	4.77	1.90	44	2.10	0.84	---
Apply manure, horses-sp.	65-bu.	1.0	5.73	10.42	16	.92	---	1.67
Plow, moldboard	2-14 inch	1.0	1.50	1.43	96	1.44	1.37	---
Plow, moldboard, horses	1-14 inch	1.0	7.50	20.03	4	.30	---	.80
Disk, tandem	7-foot	2.4	.46	.44	93	1.02	.99	---
Harrow, spiketooth	12-foot	1.8	.40	.37	62	.45	.42	---
Harrow, spiketooth, h.	12-foot	3.3	1.26	3.63	4	.17	---	.48
Cultipack	8-foot	1.4	.41	.38	19	.11	.10	---
Cultipack, horses	8-foot	1.0	.76	1.45	3	.02	---	.04
Plant	2-row	1.0	.90	.60	67	.60	.40	---
Plant, horses	2-row	1.0	1.12	2.20	33	.37	---	.73
Harrow, spiketooth	12-foot	1.4	.34	.32	30	.14	.14	---
Harrow, spiketooth, h.	12-foot	1.7	1.36	2.60	4	.09	---	.18
Cultivate	2-row	3.2	.66	.62	88	1.86	1.74	---
Cultivate, horses	1-row	2.5	1.34	2.64	12	.40	---	.79
Weed, rotary hoe	12-foot	1.6	.31	.29	32	.16	.15	---
Weed, rotary hoe, horses	12-foot	3.2	.46	.90	5	.07	---	.14
Spray	6-row	1.0	.55	.24	17	.09	.04	---
Total preharvest						10.31	6.19	4.83
Pick by machine	1-row	1.0	1.50	1.40	53	.80	.74	---
Pick by machine	2-row	1.0	.62	.58	12	.07	.07	---
Pick by machine, contract	1-row	1.0	1.43	1.04	16	.23	.17	---
Haul from picker	---	1.0	2.20	.63	81	1.78	.51	---
Bind	1-row	1.0	1.48	1.18	9	.13	.11	---
Cut by hand and shock	---	1.0	9.10	---	7	.64	---	---
Husk from shock and haul	---	1.0	9.04	2.53	9	.81	.23	---
Haul to shredder, horses	---	1.0	8.73	11.60	7	.61	---	.81
Shred	---	1.0	3.15	1.40	7	.22	.10	---
Pick by hand and haul	---	1.0	17.10	1.43	3	.51	.04	---
Total harvest						5.80	1.97	.81
Total						16.11	8.16	5.64

CORN FOR GRAIN: RESOURCES USED IN PRODUCTION, AREA IV-F6, 1949

The data presented here are based on a 1950 survey of 31 corn-producing farms in west central Pennsylvania. These farms are in type-of-farming area IV-F6, a dairy- and general-farming area in the Allegheny Plateau.

The farms surveyed averaged 134 total acres, of which 85 were in crops, including 12 in corn for grain. In 1949, the average yield of corn on these farms was 51 bushels an acre.

Tractors provide most of the power used on farms in this area. They were used for operations listed in the following tables unless otherwise indicated. The D.B.H.P. rating of these tractors ranged from 10 to 27; the most common was about 18.

Materials used and contract work hired, 1949

MATERIALS USED

Item	Unit	Quantity per acre	Price per unit	Cost per acre	Acreage covered	Average cost per acre
		Number	Dollars	Dollars	Percent	Dollars
Own seed	Bu.	0.17	5.95	1.01	14	0.14
Purchased seed	do.	.17	11.25	1.91	86	1.64
Manure	Ton	9	1/ 2.00	18.00	85	15.30
Mixed fertilizer	Cwt.	2.75	2.25	6.19	95	5.88
Lime	Ton	1.7	4.80	8.16	14	1.14
Twine	Lb.	1.0	.25	.25	31	.08
Total materials						24.18

CONTRACT WORK HIRED

Item	Unit	Quantity per acre	Price per unit	Cost per acre	Acreage covered	Average cost per acre
Planting	Acre	1.0	2.25	2.25	5	.11
Spraying (2,4-D) 2/	do.	1.0	2.75	2.75	5	.14
Picking	do.	1.0	5.10	5.10	16	.82
Total contract work						1.07

1/ Estimated.
2/ Includes materials.

Man labor, power, and machinery used by operation in producing and harvesting corn for grain, area IV-F6, west central Pennsylvania, 1949

Operation	Size of equipment	Times over	Time per acre once over: Man	Time per acre once over: Power	Acreage covered	Average time per acre - all farms: Man	Average time per acre - all farms: Tractor	Average time per acre - all farms: Horse
		No.	Hrs.	Hrs.	Pct.	Hrs.	Hrs.	Hrs.
Apply manure, spreader	75-bu.	1.0	5.66	2.14	71	4.02	1.52	---
Apply manure, horses-sp.	65-bu.	1.0	10.38	15.74	14	1.45	---	2.20
Plow, moldboard	2-14 inch	1.0	1.82	1.73	76	1.38	1.31	---
Plow, moldboard	2-14 inch	1.0	2.07	1.97	19	.39	.37	---
Plow, moldboard, horses	1-14 inch	1.0	4.84	9.68	5	.24	---	.48
Disk, tandem	7-foot	2.5	.51	.48	62	.79	.74	---
Disk, single, horses	6-foot	2.0	1.19	2.38	3	.07	---	.14
Harrow, springtooth	9-foot	2.7	.48	.44	66	.86	.79	---
Harrow, springtooth, h.	7-foot	2.0	1.25	2.40	9	.22	---	.43
Plant	2-row	1.0	1.08	.78	60	.65	.47	---
Plant, contract	2-row	1.0	1.08	.78	5	.05	.04	---
Plant, horses	2-row	1.0	1.36	2.22	32	.44	---	.71
Plant by hand	---	1.0	5.00	---	3	.15	---	---
Harrow	9-foot	1.5	.36	.33	21	.11	.10	---
Weed	12-foot	1.0	.50	.47	3	.02	.01	---
Hoe by hand	---	2.5	13.34	---	6	2.00	---	---
Cultivate	2-row	2.8	.71	.66	82	1.63	1.52	---
Cultivate, horses	1-row	3.3	1.64	3.07	19	1.03	---	1.92
Spray, contract	---	1.0	.30	.18	5	.02	.01	
Total preharvest						15.52	6.88	5.88
Pick by machine	1-row	1.0	2.55	1.72	29	.74	.50	---
Pick by machine, contr.	1-row	1.0	1.54	1.11	16	.25	.18	---
Haul from picker	---	1.0	3.66	.72	43	1.57	.31	---
Haul from picker, horse	---	1.0	1.96	1.87	2	.04	---	.04
Cut by hand and shock	---	1.0	6.80	---	12	.82	---	---
Bind	1-row	1.0	1.45	1.06	16	.23	.17	---
Bind, horses	1-row	1.0	3.00	5.50	3	.09	---	.16
Shock by hand	---	1.0	7.43	---	19	1.41	---	---
Husk from shock	---	1.0	11.18	---	31	3.47	---	---
Haul from shock	---	1.0	3.83	.95	22	.84	.21	---
Haul from shock, horses	---	1.0	7.72	4.90	9	.69	---	.44
Pick by hand and haul	---	1.0	10.68	.55	24	2.56	.13	---
Total harvest						12.71	1.50	.64
Total						28.23	8.38	6.52

CORN FOR SILAGE: RESOURCES USED IN PRODUCTION, AREA I-C1, 1949

The data presented here are based on 17 farms in Burlington County, New Jersey that produce corn for silage. These farms are in type-of-farming area I-C1, a truck-and mixed-farming area in the Atlantic sandy coastal plain.

The farms surveyed averaged 145 total acres, of which 91 were in crops, including 16 in corn for silage. In 1949, the average yield of corn silage on these farms was 11 tons an acre.

Tractors provide most of the power used on farms in this area. They were used for operations listed in the following tables unless otherwise indicated. The D.B.H.P. rating of these tractors ranged from 10 to 26; the most common was about 17.

Materials used and contract work hired, 1949

MATERIALS USED

Item	Unit	Quantity per acre	Price per unit	Cost per acre	Acreage covered	Average cost per acre
		Number	Dollars	Dollars	Percent	Dollars
Purchased seed corn	Bu.	0.23	10.22	2.35	100	2.35
Rye	do.	1.6	1.69	2.70	47	1.27
Manure	Ton	10	1/2.00	20.00	65	13.00
Fertilizer (5-10-10)	Cwt.	4.30	2.30	9.89	90	8.90
Limestone	Ton	1.0	6.65	6.65	38	2.53
Crow repellent	Qt.	.07	3.00	.21	5	.01
Spray (2,4-D)	Pt.	1.0	1.00	1.00	21	.21
Twine	Lb.	4.0	.24	.96	81	.74
Total materials						29.01

CONTRACT WORK HIRED

Item	Unit	Quantity per acre	Price per unit	Cost per acre	Acreage covered	Average cost per acre
Binding	Acre	1.0	6.00	6.00	6	.36
Filling silo, field chopper	do.	1.0	15.00	15.00	8	1.20
Total contract work						1.56

1/ Estimated.

Man labor, power, and machinery used by operation in producing and harvesting corn for silage, area I-C1, Burlington County, New Jersey, 1949

Operation	Size of equipment	Times over	Time per acre once over		Acreage covered	Average time per acre - all farms	
			Man	Power		Man	Tractor
		No.	Hrs.	Hrs.	Pct.	Hrs.	Hrs.
Cover crop:							
Disk, tandem	7-foot	2.1	0.49	0.45	47	0.48	0.44
Drill cover crop	8-foot	1.0	.77	.49	47	.36	.23
Preharvest:							
Apply manure, spreader	75-bu.	1.0	4.75	2.38	65	3.09	1.55
Spread lime	8-foot	1.0	.98	.60	19	.19	.11
Fertilize, spreader	8-foot	1.0	.68	.44	7	.05	.03
Plow, moldboard	2-14 inch	1.0	1.32	1.26	100	1.32	1.26
Disk, tandem	7-foot	2.2	.49	.45	100	1.08	.99
Harrow, springtooth	10-foot	1.5	.39	.36	42	.25	.23
Harrow, spiketooth	15-foot	1.0	.32	.29	14	.04	.04
Plant	2-row	1.0	.94	.70	100	.94	.70
Cultivate	2-row	3.2	.64	.59	100	2.05	1.89
Side dress	2-row	1.0	1.06	.68	13	.14	.09
Spray	6-row	1.5	.49	.31	21	.15	.10
Total preharvest						10.14	7.66
Cut by hand	---	1.0	7.00	---	5	.35	---
Bind	1-row	1.0	2.25	1.58	75	1.69	1.18
Bind, contract	1-row	1.0	2.25	1.58	6	.14	.09
Load and haul	---	1.0	7.98	3.00	31	2.47	.93
Load and haul, truck	1½-ton	1.0	7.98	3.00	55	4.39	---
Chop and blow	14-inch	1.0	3.45	1.40	86	2.97	1.20
Field chop	---	1.0	1.95	1.58	6	.12	.09
Field chop, contract	---	1.0	1.95	1.58	8	.16	.13
Haul to silo	---	1.0	4.72	3.15	3	.14	.09
Haul to silo, truck	1½-ton	1.0	4.72	3.15	3	.14	---
Haul, truck, contract	1½-ton	1.0	4.72	3.15	8	.38	---
Blow into silo	---	1.0	1.95	1.58	6	.12	.09
Blow into silo, contract	---	1.0	1.95	1.58	8	.16	.13
Total harvest						13.23	3.93
Total 1/						23.37	11.59

1/ In addition, trucks were used an average of 2.00 hours an acre.

CORN FOR SILAGE: RESOURCES USED IN PRODUCTION, AREA IV-F4, 1949

The data presented here are based on a survey made on approximately 35 farms in 1950, in northeastern Ohio and northwestern Pennsylvania. These farms are in type-of-farming area IV-F4, a dairy-and general-farming area on the Lake Erie border.

The farms surveyed averaged 182 total acres. In 1949, 110 acres were in crops, including 12 acres of corn harvested for silage. The average yield of corn silage was 11 tons per acre.

Tractors provide most of the power used on these farms. They were used for operations listed below unless otherwise indicated. The D.B.H.P. rating of these tractors ranged from 12 to 26; the most common was 18.

Materials used and contract work hired, 1949

MATERIALS USED

Item	Unit	Quantity per acre	Price per unit	Cost per acre	Acreage covered	Average cost per acre
		Number	Dollars	Dollars	Percent	Dollars
Purchased seed	Bu.	0.22	8.45	1.86	100	1.86
Manure	Ton	10	1/2.00	20.00	74	14.80
Mixed fertilizer	Cwt.	3.20	2.25	7.20	100	7.20
Lime	Ton	1.6	3.85	6.16	10	.62
Twine	Lb.	4.0	.25	1.00	48	.48
Total materials						24.96

CONTRACT WORK HIRED

Item	Unit	Quantity per acre	Price per unit	Cost per acre	Acreage covered	Average cost per acre
Field chopping and filling	Acre	1.0	15.50	15.50	11	1.70
Binding	do.	1.0	5.20	5.20	4	.21
Total contract work						1.91

1/ Estimated.

Man labor, power, and machinery used by operation in producing and harvesting corn silage, area IV-F4, northeastern Ohio and northwestern Pennsylvania, 1949

Operation	Size of equipment	Times over	Time per acre once over		Acreage covered	Average time per acre - all farms		
			Man	Power		Man	Tractor	Horse
		No.	Hrs.	Hrs.	Pct.	Hrs.	Hrs.	Hrs.
Apply manure, spreader	75-bu.	1.0	5.19	2.14	68	3.52	1.46	---
Apply manure, hand sled	---	1.0	19.06	13.33	6	1.14	---	0.80
Plow, moldboard	3-14 inch	1.0	1.10	1.05	21	.23	.22	---
Plow, moldboard	2-14 inch	1.0	1.48	1.42	68	1.01	.97	---
Plow, moldboard	2-12 inch	1.0	2.43	2.32	11	.27	.26	---
Disk, tandem	8-foot	2.2	.45	.43	93	.92	.88	---
Disk, tandem	6-foot	2.7	.74	.70	3	.06	.06	---
Harrow, spiketooth	11-foot	1.7	.40	.37	66	.45	.42	---
Plant	2-row	1.0	1.02	.68	89	.91	.61	---
Plant, horses	2-row	1.0	1.03	2.02	11	.11	---	.22
Cultivate	2-row	3.2	.62	.58	94	1.86	1.75	---
Cultivate, horses	1-row	3.0	1.55	3.62	6	.28	---	.65
Cultipack	8-foot	1.0	.38	.35	17	.06	.06	---
Weed	12-foot	1.7	.27	.25	24	.11	.10	---
Weed, horses	12-foot	3.0	.44	.88	7	.09	---	.18
Total preharvest						11.02	6.79	1.85
Field chop	---	1.0	1.44	1.22	41	.59	.50	---
Field chop, contract 1/	---	1.0	6.07	1.25	11	.67	.14	---
Haul to silo	---	1.0	3.00	.87	41	1.23	.36	---
Blow into silo	---	1.0	1.82	1.14	41	.75	.47	---
Bind	1-row	1.0	1.54	1.34	42	.65	.56	---
Bind, horses	1-row	1.0	3.00	5.50	2	.06	---	.11
Bind, contract	1-row	1.0	1.54	1.34	4	.06	.05	---
Haul to silo	---	1.0	8.00	1.64	39	3.12	.64	---
Haul to silo, horses	---	1.0	7.38	7.40	9	.66	---	.67
Chop and blow	---	1.0	4.43	2.33	48	2.13	1.12	---
Total harvest						9.92	3.84	.78
Total						20.94	10.63	2.63

1/ Includes hauling to silo and filling.

CORN FOR SILAGE: RESOURCES USED IN PRODUCTION, AREA IV-F6, 1949

The data presented here are based on a 1950 survey of 34 farms in west central Pennsylvania that produce corn for silage. These farms are in type-of-farming area IV-F6, a dairy-and general-farming area in the Allegheny Plateau. There are many small-scale farms in this area.

The farms surveyed averaged 184 total acres, of which 109 acres were in crops, including 10 in corn for silage. In 1949, the average yield of corn silage on these farms was 10.5 tons an acre.

Tractors provide most of the power used on these farms. They were used for operations listed in the following tables unless otherwise indicated. The D.B.H.P. rating of these tractors ranged from 10 to 26; the most common was about 18.

Materials used and contract work hired, 1949

MATERIALS USED

Item	Unit	Quantity per acre	Price per unit	Cost per acre	Acreage covered	Average cost per acre
		Number	Dollars	Dollars	Percent	Dollars
Purchased seed	Bu.	.25	8.05	2.01	100	2.01
Manure	Ton	10	1/ 2.00	20.00	68	13.60
Mixed fertilizer	Cwt.	3.95	2.40	9.48	99	9.39
Lime	Ton	1.2	4.80	5.76	21	1.21
Spray (2,4-D) 2/	Pint	1.0	1.30	1.30	3	.04
Twine	Lb.	4.0	.20	.80	76	.61
Total materials						26.86

CONTRACT WORK HIRED

Item	Unit	Quantity per acre	Price per unit	Cost per acre	Acreage covered	Average cost per acre
Spraying 3/	Acre	1.0	2.00	2.00	3	.06
Binding	do.	1.0	3.20	3.20	4	.13
Silo filling	do.	1.0	4.10	4.10	7	.29
Field chopping	do.	1.0	8.30	8.30	4	.33
Total contract work						.81

1/ Estimated.
2/ This does not include materials applied by custom operators.
3/ Includes materials.

Man labor, power, and machinery used by operation in producing and harvesting corn for silage, area IV-F6, west central Pennsylvania, 1949

Operation	Size of equipment	Times over	Time per acre once over		Acreage covered	Average time per acre - all farms		
			Man	Power		Man	Tractor	Horse
		No.	Hrs.	Hrs.	Pct.	Hrs.	Hrs.	Hrs.
Apply manure, spreader	75-bu.	1.0	8.55	2.44	62	5.30	1.51	---
Apply manure, horse-sp.	65-bu.	1.0	6.88	12.50	6	.41	---	.75
Spread lime	---	1.0	1.15	1.05	3	.03	.03	---
Spread lime, horses	---	1.0	1.10	1.41	6	.07	---	.08
Plow, moldboard	2-14 inch	1.0	1.77	1.69	66	1.17	1.12	---
Plow, moldboard	2-12 inch	1.0	2.08	1.98	30	.62	.59	---
Plow, moldboard, horses	1-14 inch	1.0	2.65	5.30	4	.11	---	.21
Disk, tandem	8-foot	1.6	.50	.47	42	.34	.32	---
Harrow, springtooth	12-foot	2.8	.49	.45	94	1.29	1.18	---
Harrow, springtooth, h.	8-foot	2.3	1.38	2.64	4	.13	---	.24
Cultipack	12-foot	1.3	.39	.36	20	.10	.09	---
Plant	2-row	1.0	1.30	.87	57	.74	.50	---
Plant, horses	2-row	1.0	1.27	2.49	43	.55	---	1.07
Weed	---	1.0	.45	.42	25	.11	.10	---
Weed, horses	8-foot	4.0	.71	1.39	1	.03	---	.06
Cultivate	2-row	3.6	.77	.72	81	2.25	2.10	---
Cultivate, horses	1-row	3.6	2.13	3.61	19	1.46	---	2.47
Spray	---	1.0	.41	.36	3	.01	.01	---
Spray, contract	---	1.0	.41	.36	3	.01	.01	---
Total preharvest						14.73	7.56	4.88
Bind	1-row	1.0	2.94	2.15	61	1.79	1.31	---
Bind, contract	2-row	1.0	1.20	1.05	4	.05	.04	---
Bind, horses	1-row	1.0	3.53	6.47	11	.39	---	.71
Cut by hand	---	1.0	6.00	---	9	.54	---	---
Haul to silo	---	1.0	15.13	4.02	65	9.83	2.61	---
Haul to silo, horses	---	1.0	16.35	8.33	11	1.80	---	.92
Haul to silo, truck	1½-ton	1.0	15.00	4.00	9	1.35	---	---
Chop and blow	---	1.0	4.56	1.95	78	3.56	1.52	---
Chop and blow, contract	---	1.0	4.26	1.82	7	.30	.13	---
Field chop	---	1.0	1.98	1.76	11	.22	.19	---
Field chop, contract	---	1.0	1.98	1.76	4	.08	.07	---
Haul chopped corn, truck	1½-ton	1.0	3.39	1.16	15	.51	---	---
Blow into silo	---	1.0	2.83	1.42	15	.42	.21	---
Total harvest						20.84	6.08	1.63
Total 1/						35.57	13.64	6.51

1/ In addition, trucks were used 0.53 hour an acre.

SWEET CORN: RESOURCES USED IN PRODUCTION, AREA I-C1, 1949

The data presented here are based on 13 farms in Burlington County, New Jersey that produce sweet corn for fresh consumption. These farms are in type-of-farming area I-C1, a truck-and mixed-farming area in the Atlantic sandy coastal plain.

The farms surveyed averaged 119 total acres, of which 98 were in crops, including 42 in sweet corn. In 1949, the average yield of sweet corn on these farms was 3,550 ears an acre.

Tractors provide most of the power used on farms in this area. They were used for operations listed in the following tables unless otherwise indicated. The D.B.H.P. rating of these tractors ranged from 11 to 26; the most common was about 17.

Materials used and contract work hired, 1949

MATERIALS USED

Item	Unit	Quantity per acre	Price per unit	Cost per acre	Acreage covered	Average cost per acre
		Number	Dollars	Dollars	Percent	Dollars
Purchased seed corn	Lb.	10.00	0.38	3.80	100	3.80
Rye	Bu.	1.8	1.68	3.02	100	3.02
Manure	Ton	8	2.00	16.00	10	1.60
Fertilizer (5-10-10)	Cwt.	12.30	2.30	28.29	100	28.29
Limestone	Ton	.9	6.65	5.98	75	4.48
D.D.T.	Cwt.	.38	5.12	1.95	70	1.36
Pyrethrum	Gal.	.50	2.40	1.20	7	.08
Bags	No.	65	.14	9.10	76	6.92
Bushel hampers	do.	45	.24	10.80	24	2.59
Total materials						52.14

CONTRACT WORK HIRED

Item	Unit	Quantity per acre	Price per unit	Cost per acre	Acreage covered	Average cost per acre
Dusting, airplane	Acre	1.0	4.00	4.00	13	.52
Hauling to market	Bags	65	.10	6.50	23	1.50
Total contract work						2.02

1/ Estimated.

Man labor, power, and machinery used by operation in producing and harvesting sweet corn, area I-Cl, Burlington County, New Jersey, 1949

Operation	Size of equipment	Times over	Time per acre once over: Man	Time per acre once over: Power	Acreage covered	Average time per acre - all farms: Man	Average time per acre - all farms: Tractor
		No.	Hrs.	Hrs.	Pct.	Hrs.	Hrs.
Cover crop:							
Disk, tandem	7-foot	2.0	0.49	0.45	100	0.49	0.45
Seed cover crop, drill	8-foot	1.0	.77	.49	100	.77	.49
Preharvest:							
Apply manure, spreader	75-bu.	1.0	4.00	2.00	10	.40	.20
Spread lime	8-foot	1.0	.98	.60	39	.38	.23
Plow, moldboard	2-14 inch	1.0	1.32	1.26	100	1.32	1.26
Disk, tandem	7-foot	2.3	.49	.45	100	1.13	1.04
Harrow, spiketooth	10-foot	1.8	.39	.36	21	.15	.14
Fertilize, spreader	8-foot	1.0	.68	.44	24	.16	.11
Plant	2-row	1.0	1.16	.70	100	1.16	.70
Cultivate	2-row	3.5	.64	.59	100	2.24	2.07
Hoe by hand	---	2.4	6.00	---	76	10.94	---
Side dress	2-row	1.0	1.06	.68	70	.74	.47
Dust	4-row	1.3	.98	.42	70	.89	.39
Dust, airplane (custom)	---	1.0	.28	---	13	.04	---
Apply oil by hand	---	1.0	6.00	---	7	.42	---
Spray (2,4-D)	6-row	1.0	.35	.30	3	.01	.01
Irrigate	---	2.0	1.92	1.68	35	1.34	1.18
Total preharvest						22.58	8.74
Pick by hand	---	2.0	4.62	.92	100	9.24	1.84
Bag by hand	---	2.0	4.62	---	100	9.24	---
Haul to market, truck	2-ton	1.0	2.00	1.00	77	1.54	---
Haul, truck (contract)	2-ton	1.0	2.00	1.00	23	.46	---
Total harvest						20.48	1.84
Total 1/						43.06	10.58

1/ In addition, trucks were used an average of 1.00 hour an acre.

CUCUMBERS: RESOURCES USED IN PRODUCTION, AREA I-C1, 1949

The data presented here are based on 19 cucumber-producing farms in Wicomico County, Maryland. These farms are in type-of-farming area I-C1, a truck-and mixed-farming area of the Atlantic sandy coastal plain.

The farms surveyed averaged 84 total acres, of which 66 were in crops, including 4.2 in cucumbers. In 1949, the average yield of cucumbers on these farms was 198 bushels an acre.

Tractors provide most of the power used on farms in this area. They were used for operations listed in the following tables unless otherwise indicated. The D.B.H.P. rating of these tractors ranged from 10 to 26; the most common was about 17.

Materials used and contract work hired, 1949 1/

MATERIALS USED

Item	Unit	Quantity per acre	Price per unit	Cost per acre	Acreage covered	Average cost per acre
		Number	Dollars	Dollars	Percent	Dollars
Purchased seed	Lb.	3.9	2.00	7.80	100	7.80
Manure	Ton	8	2/2.00	16.00	91	14.56
Fertilizer (5-10-5)	Cwt.	10.60	2.15	22.79	100	22.79
Limestone	Ton	2.0	6.65	13.30	27	3.59
Dust	Lb.	69	.13	8.97	73	6.55
Bushel baskets	No.	198	.33	65.34	100	65.34
Liners	No.	198	.02	3.96	31	1.23
Wax	Gal.	4.0	2.35	9.40	31	2.91
Total materials						124.77

1/ Work done on a custom or contract basis was negligible.

2/ Estimated.

Man labor, power, and machinery used by operation in producing and harvesting cucumbers, area I-C1, Wicomico County, Maryland, 1949

Operation	Size of equipment	Times over	Time per acre once over: Man	Time per acre once over: Power	Acreage covered	Average time per acre - all farms: Man	Average time per acre - all farms: Tractor	Average time per acre - all farms: Horse
		No.	Hrs.	Hrs.	Pct.	Hrs.	Hrs.	Hrs.
Apply manure, spreader	75-bu.	1.0	3.90	1.95	45	1.76	0.88	---
Apply manure, loader-sp.	75-bu.	1.0	2.74	2.74	31	.85	.85	---
Apply manure, wagon	100-bu.	1.0	7.80	1.95	9	.70	.18	---
Apply manure, h. and w.	100-bu.	1.0	7.80	7.80	6	.47	---	.47
Spread lime	8-foot	1.0	.98	.63	7	.07	.04	---
Plow, moldboard	2-14 inch	1.0	1.32	1.26	100	1.32	1.26	---
Disk, tandem	7-foot	2.0	.49	.45	100	.98	.90	---
Harrow, spiketooth	10-foot	1.4	.40	.37	83	.46	.43	---
Harrow, spiketooth, h.	9-foot	1.5	1.31	2.62	4	.08	---	.16
Mark rows, horse	3-row	1.0	.52	.52	22	.11	---	.11
Fertilize	1-row	1.0	.68	.46	10	.07	.05	---
Fertilize, horses	1-row	1.0	.85	1.20	14	.12	---	.17
Plant	1-row	1.0	2.62	1.31	83	2.17	1.09	---
Plant, horses	1-row	1.0	2.73	2.73	6	.16	---	.16
Plant by hand	---	1.0	3.00	---	11	.33	---	---
Replant	1-row	1.0	2.62	1.31	11	.29	.14	---
Cultivate	1-row	4.7	.92	.84	57	2.46	2.25	---
Cultivate, horses	1-row	4.7	1.36	2.05	59	3.77	---	5.68
Side dress	1-row	1.0	1.15	1.05	42	.48	.44	---
Dust	3-row	2.3	.30	.28	31	.21	.20	---
Dust, horses	3-row	2.0	.43	.86	18	.15	---	31
Dust by hand	---	2.0	1.72	---	6	.21	---	---
Hoe and weed	---	2.0	6.65	---	100	13.30	---	---
Total preharvest						30.52	8.71	7.06
Pick by hand	---	13.6	4.41	---	100	59.98	---	---
Haul to barn, truck	1½-ton	13.6	.59	.15	100	8.00	---	---
Clean and pack	---	13.6	1.47	---	31	6.20	---	---
Clean and pack by hand	---	13.6	1.76	---	69	16.52	---	---
Haul to market, truck	1½-ton	13.6	1.54	.62	100	20.94	---	---
Total harvest						111.64		
Total 1/ 2/						142.16	8.71	7.06

1/ In addition, trucks were used an average of 2.88 hours an acre.
2/ Includes a small amount of work done on a custom or contract basis.

OATS: RESOURCES USED IN PRODUCTION, AREA IV-F3, 1949

The data presented here are based on a 1950 survey of 34 oat-producing farms in type-of-farming area IV-F3, northern Piedmont. This dairy-and-general farming area comprises parts of Pennsylvania, Maryland, Virginia, and Delaware. Information on oats was obtained in the first two of these States where most of the oats are grown.

The farms surveyed averaged 150 total acres of which 116 were in crops, including 11 acres in oats. In 1949, the average yield of oats in this area was 29 bushels an acre.

Tractors provide most of the power used on these farms; they were used for operations listed in the following tables unless otherwise indicated. The D.B.H.P. rating of these tractors ranged from 13 to 28; the more common was about 18.

Materials used and contract work hired, 1949

MATERIALS USED

Item	Unit	Quantity per acre	Price per unit	Cost per acre	Acreage covered	Average cost per acre
		Number	Dollars	Dollars	Percent	Dollars
Own seed	Bu.	2.3	1/ 2.07	4.76	8	0.38
Purchased seed	do.	2.3	2.07	4.76	92	4.38
Manure	Ton	8	1/ 2.00	16.00	14	2.24
Fertilizer (3-12-6)	Cwt.	3.30	2.00	6.60	97	6.40
Limestone	Ton	1.3	6.30	.82	7	.06
Weed spray	Gal.	.4	8.00	3.20	2	.06
Twine	Lb.	2.5	.25	.62	12	.07
Total materials						13.59

CONTRACT WORK HIRED

Drilling	Acre	1.0	1.25	1.25	5	.06
Combining	do.	1.0	5.62	5.62	27	1.52
Threshing	Bu.	29.0	.08	2.32	4	.09
Total contract work						1.67

1/ Estimated.

Man labor, power, and machinery used by operation in producing and harvesting oats, area IV-F3, northern Piedmont, 1949

Operation	Size of equipment	Times over	Time per acre once over		Acreage covered	Average time per acre - all farms	
			Man	Power		Man	Tractor
		No.	Hrs.	Hrs.	Pct.	Hrs.	Hrs.
Apply manure, spreader	75 bu.	1.0	4.07	2.04	14	0.57	0.29
Plow, moldboard	3-14 inch	1.0	1.03	.99	15	.15	.15
Plow, moldboard	2-14 inch	1.0	1.65	1.58	59	.97	.93
Disk, tandem	7-foot	2.8	.55	.52	97	1.49	1.42
Harrow, spiketooth	15-foot	2.1	.44	.42	40	.37	.35
Seed, drill	8-foot	1.0	.77	.49	76	.59	.37
Seed, drill (contract)	8-foot	1.0	.77	.49	5	.04	.02
Seed, drill, horses	8-foot	1.0	1.10	2.10	19	.21	---
Total preharvest						4.39	3.53
Combine	6-foot	1.0	1.66	.84	61	1.01	.51
Combine (contract)	6-foot	1.0	1.66	.84	27	.45	.23
Haul from combine	1½ ton	1.0	.50	.25	38	.19	.10
Haul from combine, truck	1½ ton	1.0	.50	.25	50	.25	---
Bind	8-foot	1.0	1.38	.71	12	.17	.09
Shock by hand	---	1.0	1.10	---	12	.13	---
Haul bundles	---	1.0	3.50	.63	6	.21	.04
Haul bundles, truck	1½ ton	1.0	3.50	.63	5	.18	---
Haul bundles, horses	---	1.0	3.50	3.30	1	.04	---
Thresh	28-inch	1.0	.74	.35	8	.06	.03
Thresh (contract)	28-inch	1.0	.74	.35	4	.03	.01
Total harvest						2.72	1.01
Total 1/						7.11	4.54

1/ In addition horse work averaged 0.43 hour an acre and truck work averaged 0.15 hour an acre.

OATS: RESOURCES USED IN PRODUCTION, AREA IV-F4, 1949

The data presented here are based on a survey made on approximately 40 farms in 1950, in northeastern Ohio and northwestern Pennsylvania. These farms are in type-of-farming area IV-F4, a dairy-and general-farming area on the Lake Erie border.

The farms surveyed averaged 173 total acres. In 1949, 105 acres were in crops, including 19 in oats. The average yield of oats was 35 bushels per acre.

Tractors provide most of the power used on these farms. They were used for the operations listed below unless otherwise indicated. The D.B.H.P. rating of these tractors ranged from 10 to 29; the most common was 17.

Materials used and contract work hired, 1949

MATERIALS USED

Item	Unit	Quantity per acre	Price per unit	Cost per acre	Acreage covered	Average cost per acre
		Number	Dollars	Dollars	Percent	Dollars
Seed 1/	Bu.	2.4	1.95	4.68	100	4.68
Manure	Ton	11	2/ 2.00	22.00	12	2.64
Mixed fertilizer	Cwt.	2.25	2.00	4.50	97	4.36
Lime	Ton	1.3	3.85	5.01	14	.70
Twine	Lb.	3.2	.27	.86	34	.29
Total materials						12.67

CONTRACT WORK HIRED

Item	Unit	Quantity per acre	Price per unit	Cost per acre	Acreage covered	Average cost per acre
Combining	Acre	1.0	5.10	5.10	20	1.02
Threshing	do.	35.2	.08	2.82	13	.37
Total contract work						1.39

1/ Approximately 61 percent of the farmers in this area purchased seed oats.
2/ Estimated.

Man labor, power, and machinery used by operation in producing and harvesting oats, area IV-F4, northeastern Ohio and northwestern Pennsylvania, 1949

Operation	Size of equipment	Times over	Time per acre once over		Acreage covered	Average time per acre - all farms	
			Man	Power		Man	Tractor
		No.	Hrs.	Hrs.	Pct.	Hrs.	Hrs.
Apply manure, spreaders	75-bu.	1.0	2.85	0.92	12	0.34	0.11
Spread lime	---	1.0	1.32	1.21	4	.05	.05
Plow, moldboard	2-14 inch	1.0	1.41	1.34	63	.89	.84
Plow, moldboard	2-12 inch	1.0	2.09	2.00	9	.19	.18
Plow, moldboard	1-16 inch	1.0	3.15	3.00	18	.57	.54
Disk, tandem	8-foot	2.0	.37	.36	32	.24	.23
Disk, tandem	7-foot	2.3	.52	.49	48	.58	.54
Harrow, springtooth	9-foot	1.6	.46	.42	58	.43	.39
Drill	6-foot	1.0	.82	.62	93	.76	.58
Drill, horses	5-foot	1.0	1.15	2.20	4	.05	---
Drill, contract	6-foot	1.0	.82	.62	3	.02	.02
Total preharvest						4.12	3.48
Combine	6-foot	1.0	1.54	.84	46	.71	.39
Combine, contract	6-foot	1.0	1.54	.84	20	.31	.17
Haul from combine	---	1.0	1.03	.40	66	.68	.26
Bind	7-foot	1.0	1.56	.91	34	.53	.31
Shock by hand	---	1.0	1.96	---	34	.67	---
Haul bundles	---	1.0	3.72	.94	34	1.26	.32
Thresh	28-inch	1.0	1.38	.53	21	.29	.11
Thresh, contract	28-inch	1.0	1.38	.53	13	.18	.07
Haul from thresher	---	1.0	.70	.23	34	.24	.08
Total harvest						4.87	1.71
Total 1/						8.99	5.19

1/ In addition horse work averaged 0.09 hour an acre.

OATS: RESOURCES USED IN PRODUCTION, AREA IV-F6, 1949

The data presented here are based on a 1950 survey of 37 farms in west central Pennsylvania. These farms are in type-of-farming area IV-F6, a dairy- and general-farming area in the Allegheny Plateau. Most of the oats produced in this area is grown for feed.

The farms surveyed averaged 161 total acres, of which 96 acres were in crops, including 19 in oats. In 1949, the average yield of oats was 38 bushels an acre.

Tractors provide most of the power used on these farms. They were used for operations listed in the following tables unless otherwise indicated. The D.B.H.P. rating of these tractors ranged from 12 to 27; the most common was about 19.

Materials used and contract work hired, 1949

MATERIALS USED

Item	Unit	Quantity per acre	Price per unit	Cost per acre	Acreage covered	Average cost per acre
		Number	Dollars	Dollars	Percent	Dollars
Seed 1/	Bu.	2.5	2.05	5.12	100	5.12
Manure	Ton	7	2/2.00	14.00	10	1.40
Mixed fertilizer	Cwt.	2.55	2.10	5.36	99	5.31
Lime	Ton	1.1	4.80	5.28	26	3/ .68
Twine	Lb.	5.9	.23	1.36	73	.99
Sacks	No.	17	.09	1.53	2	.03
Total materials						13.53

CONTRACT WORK HIRED

Combining	Acre	1.0	4.60	4.60	4	.18
Threshing	Bu.	38	.05	1.90	38	.72
Total contract work						.90

1/ Approximately 43 percent of the farmers in this area purchased seed oats.
2/ Estimated.
3/ Allocated one-half the cost of lime to hay crop.

Man labor, power, and machinery used by operation in producing and harvesting oats, area IV-F6, west central Pennsylvania, 1949

Operation	Size of equipment	Times over	Time per acre once over: Man	Time per acre once over: Power	Acreage covered	Average time per acre - all farms: Man	Average time per acre - all farms: Tractor	Average time per acre - all farms: Horse
		No.	Hrs.	Hrs.	Pct.	Hrs.	Hrs.	Hrs.
Apply manure, spreader	75-bu.	1.0	7.85	3.57	10	0.78	0.36	---
Spread lime	---	1.0	.95	.87	6	.06	.05	---
Spread lime, horses	---	1.0	2.30	4.40	2	.05	---	.09
Plow, moldboard	3-12 inch	1.0	1.38	1.31	22	.30	.29	---
Plow, moldboard	2-14 inch	1.0	1.83	1.74	68	1.24	1.18	---
Plow, moldboard, horses	1-12 inch	1.0	6.47	12.94	3	.19	---	.39
Disk, tandem	8-foot	2.1	.68	.65	23	.33	.31	---
Disk, tandem	7-foot	1.7	.52	.49	11	.10	.09	---
Harrow, springtooth	10-foot	2.5	.51	.46	76	.97	.87	---
Harrow, springtooth, h.	6-foot	2.5	1.40	2.68	2	.07	---	.13
Clean seed	---	1.0	.19	---	8	.02	---	---
Seed, drill	7-foot	1.0	1.02	.71	89	.91	.63	---
Seed, drill, horses	6-foot	1.0	1.50	2.40	11	.16	---	.26
						5.18	3.78	.87
Combine	6-foot	1.0	2.82	1.21	23	.65	.28	---
Combine, s.p., contract	---	1.0	.68	.55	2	.01	---	---
Combine, contract	6-foot	1.0	1.35	.55	2	.03	.01	---
Haul from combine	---	1.0	1.02	.34	27	.28	.09	---
Bind	8-foot	1.0	1.57	.81	69	1.08	.56	---
Bind, horses	7-foot	1.0	1.72	4.72	4	.07	---	.19
Shock by hand	---	1.0	1.19	---	51	.61	---	---
Haul bundles	---	1.0	3.62	.77	69	2.50	.53	---
Haul bundles, horses	---	1.0	2.00	1.17	4	.08	---	.05
Thresh	22-inch	1.0	4.10	.55	35	1.44	.19	---
Thresh, contract	22-inch	1.0	1.09	.44	38	.41	.17	---
Haul grain	---	1.0	.65	.17	73	.47	.12	---
Total harvest						7.63	1.95	.24
Total 1/						12.81	5.73	1.11

1/ In addition self-propelled combines were used on average of .01 hour an acre.

PEAS FOR PROCESSING: RESOURCES USED IN PRODUCTION, AREA I-C1, 1949

The data presented here are based on a survey of approximately 17 farms that produced peas for processing in 1950, in New Jersey, Delaware and Maryland. These farms are in type-of-farming area I-C1, a truck-a mixed-farming area in the Atlantic sandy coastal plains.

For the most part peas in this area are grown and harvested by the farm operator and family with their own power and equipment, and with some hired help for harvest work. Approximately 20 percent of the peas are harvested with a portable viner supplied by the processor who also furnishes the harvest labor and power.

The farms surveyed averaged 198 total acres. In 1949, 154 acres crops, including 20 in peas. The average yield of peas was 2,192 pounds per acre.

Tractors provide most of the power on these farms. They were used for operations listed below unless otherwise indicated. The D.B.H.P. rating of these tractors ranged from 10 to 26; the most common was 17.

Materials used and contract work hired, 1949

MATERIALS USED

Item	Unit	Quantity per acre	Price per unit	Cost per acre	Acreage covered	Average cost per acre
		Number	Dollars	Dollars	Percent	Dollars
Seed	Lb.	321	0.12	38.52	100	38.52
Mixed fertilizer (5-10-10)	Cwt.	12.90	2.30	29.67	99	29.37
Limestone	Ton	1.2	6.65	7.98	74	5.91
Total materials						73.80

CONTRACT WORK HIRED

Spraying or dusting	Acre	1.0	2.00	2.00	30	.60
Vining	Ton	1.1	7.00	7.70	37	2.85
Cutting and vining	Ton	1.1	15.00	16.50	20	3.30
Total contract work						6.75

Man labor, power, and machinery used by operation in producing and harvesting peas for processing, area I-C1, Atlantic sandy coastal plain, 1949

Operation	Size of equipment	Times over	Time per acre once over		Acreage covered	Average time per acre - all farms	
			Man	Power		Man	Tractor
		No.	Hrs.	Hrs.	Pct.	Hrs.	Hrs.
Haul vines to field	---	1.0	2.00	.50	80	1.60	.40
Spread vines	90-bu	1.0	2.10	2.10	80	1.68	1.68
Plow, moldboard	3-14 inch	1.0	.92	.88	36	.33	.32
Plow, moldboard	2-14 inch	1.0	1.32	1.26	64	.84	.81
Spread lime	8-foot	1.0	.97	.60	26	.25	.16
Fertilize, spreader	8-foot	1.0	.68	.44	99	.67	.44
Disk, tandem	7-foot	1.7	.49	.45	98	.81	.74
Harrow, springtooth	10-foot	1.3	.39	.36	18	.09	.08
Drill	10-foot	1.0	.77	.49	100	.77	.49
Rotary hoe	12-foot	1.8	.39	.36	40	.28	.26
Harrow, spiketooth	15-foot	1.2	.32	.29	36	.14	.13
Dust, airplane, contract	---	1.0	.28	---	30	.08	---
Total preharvest						7.54	5.51
Mow and windrow	6-foot	1.0	1.65	1.10	80	1.32	.88
Haul to viner, truck	1½-ton	1.0	9.30	6.00	80	7.44	4.80
Vine 1/	---	1.0	4.72	3.00	43	2.03	1.29
Vine, contract 2/	---	1.0	4.72	3.00	37	1.74	1.11
Cut and vine, contract 3/	---	1.0	6.30	3.15	20	1.26	.63
Total harvest						13.79	8.71
Total 4/						21.33	14.22

1/ Farmer supplies power and labor, processor supplies the viner.
2/ Processor supplies power, labor, viner.
3/ All done in one operation by processor's crew and equipment.
4/ In addition trucks used for hauling vines to field averaged 2.40 hours an acre.

POTATOES: RESOURCES USED IN PRODUCTION, AREA IV-F6, 1949

The data presented here are based on a 1950 survey of 31 farms in west central Pennsylvania. These farms are in type-of-farming area IV-F6, a dairy-and general-farming area in the Allegheny Plateau.

The farms surveyed averaged 242 total acres, of which 137 acres were in crops, including 16 in potatoes. In 1949, the average yield of potatoes was 351 bushels per acre.

Tractors provide most of the power used on these farms. They were used for operations listed in the following tables unless otherwise indicated. The D.B.H.P. rating of these tractors ranged from 10 to 27; the most common was about 18.

Materials used and contract work hired, 1949

MATERIALS USED

Item	Unit	Quantity per acre	Price per unit	Cost per acre	Acreage covered	Average cost per acre
		Number	Dollars	Dollars	Percent	Dollars
Own seed	Bu.	25.0	2.20	55.00	31	17.05
Purchased seed	do.	25.0	3.35	83.75	69	57.79
Manure	Ton	10 1/	2.00	20.00	54	10.80
Fertilizer (5-10-10)	Cwt.	17.40	2.60	45.24	100	45.24
Spray 2/	Gal.	5.8	1.65	9.57	57	5.45
Dust	Lb.	636	.06	38.16	5	1.91
Sacks	No.	89	.12	10.68	39	4.17
Total materials						142.41

CONTRACT WORK HIRED

Item	Unit	Quantity per acre	Price per unit	Cost per acre	Acreage covered	Average cost per acre
Plant	Acre	1.0	3.80	3.80	7	.27
Spray 3/	do.	9.9	2.90	28.71	38	10.91
Total contract work						11.18

1/ Estimated.

2/ This does not include materials applied by custom operator. Approximately 70 percent sprayed with diathane and remaining 30 percent used miscellaneous materials.

3/ Includes materials.

Man labor, power, and machinery used by operation in producing and harvesting potatoes, area IV-F6, west central Pennsylvania, 1949

Operation	Size of equipment	Times over	Time per acre once over		Acreage covered	Average time per acre - all farms	
			Man	Power		Man	Tractor
		No.	Hrs.	Hrs.	Pct.	Hrs.	Hrs.
Apply manure, spreader	75-bu.	1.0	5.16	1.83	54	2.78	0.99
Plow, moldboard	3-14 inch	1.0	1.34	1.28	31	.42	.40
Plow, moldboard	2-14 inch	1.0	1.85	1.76	55	1.02	.97
Plow, moldboard	2-12 inch	1.0	2.38	2.27	7	.17	.16
Plow, moldboard	1-16 inch	1.0	3.08	2.94	7	.22	.21
Disk, tandem	8-foot	2.0	.63	.60	61	.77	.73
Harrow, springtooth	10-foot	2.6	.49	.45	72	.91	.84
Cut seed by hand	---	1.0	8.04	---	100	8.04	---
Plant	2-row	1.0	3.12	1.60	92	2.87	1.47
Plant, contract	2-row	1.0	3.02	1.39	7	.21	.10
Plant, horses	---	1.0	1.53	2.93	1	.02	---
Weed	4-row	3.6	.46	.43	47	.78	.73
Weed, horses	4-row	2.2	.76	1.50	10	.17	---
Cultivate	2-row	3.6	1.00	.93	79	2.84	2.65
Cultivate, horses	1-row	2.5	2.63	5.17	23	1.51	---
Hoe by hand	---	1.5	4.68	---	9	.63	---
Dust	5-row	10.8	.64	.56	5	.35	.30
Spray	10-row	13.4	.84	.53	57	6.42	4.05
Spray, contract	10-row	9.9	.70	.34	38	2.63	1.28
Total preharvest						32.76	14.88
Dig	2-row	1.0	3.56	2.13	58	2.06	1.24
Dig	1-row	1.0	5.90	3.14	42	2.48	1.32
Pick-up by hand	---	1.0	25.83	---	100	25.83	---
Haul to storage, truck	2-ton	1.0	5.08	1.38	97	4.93	---
Grade and bag by hand	---	1.0	18.66	---	46	8.58	---
Haul to market, truck	2-ton	1.0	8.62	7.50	3	.26	---
Total harvest						44.14	2.56
Total 1/						76.90	17.44

1/ In addition horse work averaged 3.33 hours an acre and truck use averaged 1.56 hours an acre.

SOYBEANS: RESOURCES USED IN PRODUCTION, AREA I-C1, 1949

The data presented here are based on a 1950 survey of 40 soybean-producing farms in New Jersey, Delaware and Maryland. These farms are in type-of-farming area I-C1, a truck-and mixed-farming area of the Atlantic sandy coastal plain.

The farms surveyed averaged 185 total acres, of which 115 were in crops, including 28 in soybeans. In 1949, the average yield of soybeans in this area was 19 bushels an acre.

Tractors provide most of the power used on these farms; they were used for operations listed in the following tables unless otherwise indicated. The D.B.H.P. rating of these tractors ranged from 7 to 27; the more common was about 17.

Materials used and contract work hired, 1949

MATERIALS USED

Item	Unit	Quantity per acre	Price per unit	Cost per acre	Acreage covered	Average cost per acre
		Number	Dollars	Dollars	Percent	Dollars
Own seed	Bu.	1.9	1/ 2.64	5.02	80	4.02
Purchased seed	do.	1.9	2.64	5.02	20	1.00
Inoculant	Can	.37	.55	.20	24	.05
Manure	Ton	7	1/ 2.00	14.00	18	2.52
Fertilizer (3-12-6)	Cwt.	2.70	2.00	5.40	19	1.03
Limestone	Ton	.8	6.65	5.32	16	.85
Use of bags	No.	11	.05	.55	45	.25
Total materials						9.72

CONTRACT WORK HIRED

Item	Unit	Quantity per acre	Price per unit	Cost per acre	Acreage covered	Average cost per acre
Combining	Acre	1.0	5.40	5.40	51	2.75
Total contract work						2.75

1/ Estimated.

Man labor, power, and machinery used by operation in producing and harvesting soybeans, area I-C1, Atlantic sandy coastal plain, 1949

Operation	Size of equipment	Times over	Time per acre once over		Acreage covered	Average time per acre - all farms	
			Man	Power		Man	Tractor
		No.	Hrs.	Hrs.	Pct.	Hrs.	Hrs.
Apply manure, spreader	75-bu.	1.0	3.50	1.75	18	0.63	0.32
Spread lime	8-foot	1.0	.98	.60	11	.11	.07
Fertilize, drill	8-foot	1.0	.68	.44	12	.08	.05
Plow, moldboard	2-14 inch	1.0	1.32	1.26	83	1.10	1.05
Plow, moldboard	3-14 inch	1.0	.92	.88	17	.16	.15
Disk, tandem	7-foot	1.8	.49	.45	100	.88	.81
Harrow, springtooth	10-foot	1.5	.39	.36	9	.05	.05
Harrow, spiketooth	15-foot	1.5	.32	.29	53	.25	.23
Roll	10-foot	1.5	.49	.45	10	.07	.07
Seed, drill	8-foot	1.0	.55	.45	94	.52	.42
Plant	2-row	1.0	1.16	.70	2	.02	.01
Plant	4-row	1.0	.60	.36	4	.02	.01
Cultivate	2-row	2.0	.63	.58	2	.03	.02
Cultivate	4-row	3.0	.46	.42	4	.06	.05
Total preharvest						3.98	3.31
Combine	5-foot	1.0	1.75	1.13	22	.38	.25
Combine (contract)	5-foot	1.0	1.75	1.13	22	.38	.25
Combine	6-foot	1.0	1.45	.93	27	.39	.25
Combine (contract)	6-foot	1.0	1.45	.93	13	.19	.12
Combine (contract)	8-foot	1.0	1.14	.75	7	.08	.05
Combine, s.p. (contract)	12-foot	1.0	.59	.56	9	.05	---
Haul from combine	---	1.0	.50	.25	18	.09	.04
Haul from combine-truck	1½-ton	1.0	.50	.25	82	.41	---
Total harvest						1.97	.96
Total 1/						5.95	4.27

1/ In addition, trucks were used 0.20 hour an acre and self-propelled combines, 0.05 hour an acre.

SOYBEANS: RESOURCES USED IN PRODUCTION, AREA IV-F3, 1949

The data presented here are based on a 1950 survey of 38 soybean-producing farms in type-of-farming area IV-F3, northern Piedmont. Soybean schedules were taken on farms in southeastern Pennsylvania and northeastern Maryland only.

The farms surveyed averaged 210 total acres, of which 136 were in crops including 27 acres in soybeans. In 1949, the average yield of soybeans on these farms was 16 bushels an acre.

Tractors provide most of the power used on farms in this area; they were used for operations listed in the following tables unless otherwise indicated. The D.B.H.P. rating of these tractors ranged from 11 to 27; the more common was about 20.

Materials used and contract work hired, 1949

MATERIALS USED

Item	Unit	Quantity per acre	Price per unit	Cost per acre	Acreage covered	Average cost per acre
		Number	Dollars	Dollars	Percent	Dollars
Own seed	Bu.	1.9	1/ 3.34	6.35	69	4.38
Purchased seed	do.	1.9	3.34	6.35	31	1.97
Inoculant	Can	.25	.55	.14	80	.11
Manure	Ton	7	1/ 2.00	14.00	2	.28
Fertilizer	Cwt.	2.10	2.00	4.20	57	2.39
Limestone	Ton	1.2	6.30	.76	9	.68
Total materials						9.81

CONTRACT WORK HIRED

Item	Unit	Quantity per acre	Price per unit	Cost per acre	Acreage covered	Average cost per acre
Combining	Acre	1.0	5.56	5.56	13	.72
Hauling	Bu.	16.0	.10	1.60	12	.19
Total contract work						.91

1/ Estimated.

Man labor, power, and machinery used by operation in producing and harvesting soybeans, area IV-F3, southeastern Pennsylvania and northeastern Maryland, 1949

Operation	Size of equipment	Times over	Time per acre once over		Acreage covered	Average time per acre - all farms	
			Man	Power		Man	Tractor
		No.	Hrs.	Hrs.	Pct.	Hrs.	Hrs.
Apply manure, spreader	75-bu.	1.0	.50	.25	2	.01	.01
Spread lime	8-foot	1.0	.98	.60	9	.09	.05
Fertilize, spreader	8-foot	1.0	.68	.44	10	.07	.04
Plow, moldboard	3-14 inch	1.0	1.03	.99	40	.41	.40
Plow, moldboard	2-14 inch	1.0	1.43	1.36	60	.86	.82
Disk, tandem	7-foot	2.3	.55	.52	80	1.01	.96
Disk and harrow	7-foot	2.1	.58	.56	12	.15	.14
Disk and roll	7-foot	1.3	.55	.52	25	.18	.17
Harrow, springtooth	10-foot	1.2	.44	.42	52	.28	.26
Harrow, spiketooth	15-foot	1.7	.26	.25	2	.01	.01
Seed, drill	8-foot	1.0	.55	.41	93	.51	.38
Seed, drill, horses	8-foot	1.0	1.10	2.10	7	.08	---
Total preharvest						3.66	3.24
Combine	6-foot	1.0	1.45	.93	87	1.26	.81
Combine (contract)	6-foot	1.0	1.45	.93	13	.19	.12
Haul, truck	1½-ton	1.0	.40	.20	88	.35	---
Haul, truck (contract)	1½-ton	1.0	.40	.20	12	.05	---
Total harvest						1.85	.93
Total 1/						5.51	4.17

1/ In addition horse work averaged 0.15 hour an acre and truck work averaged 0.20 hour an acre.

SWEETPOTATOES: RESOURCES USED IN PRODUCTION, AREA I-C1, 1949

The data presented here are based on a 1950 survey of 27 sweetpotato-producing farms in New Jersey and Maryland. These farms are in type-of-farming area I-C1, a truck-and mixed-farming area of the Atlantic sandy coastal plain.

The farms surveyed averaged 147 total acres, of which 97 were in crops, including 22 acres in sweetpotatoes. In 1949, the average yield of sweetpotatoes on these farms was 176 bushels an acre.

Tractors provide most of the power used on farms in this area; they were used for operations listed in the following tables unless otherwise indicated. The D.B.H.P. rating of these tractors ranged from 10 to 26; the more common was about 17.

Materials used and contract work hired, 1949

MATERIALS USED

Item	Unit	Quantity per acre	Price per unit	Cost per acre	Acreage covered	Average cost per acre
		Number	Dollars	Dollars	Percent	Dollars
Own plants	1,000	10.2	1/ 3.30	33.66	94	31.64
Purchased plants	1,000	10.2	3.30	33.66	6	2.02
Manure	Ton	8	1/ 2.00	16.00	4	.64
Fertilizer (3-9-12)	Cwt.	14.40	2.35	33.84	100	33.84
Limestone	Ton	1.1	6.65	7.32	10	.73
Calcium arsenate	Lb.	20	.11	2.20	6	.13
Hampers (5/8 bushel)	No.	240	.15	36.00	7	2.52
Baskets (bushel)	No.	150	.33	49.50	93	46.03
Total materials						117.55

CONTRACT WORK HIRED

Item	Unit	Quantity per acre	Price per unit	Cost per acre	Acreage covered	Average cost per acre
Picking	Bu.	176	.12	21.12	40	8.45
Total contract work						8.45

1/ Estimated.

Man labor, power, and machinery used by operation in producing and harvesting sweetpotatoes, area I-C1, Atlantic sandy coastal plain, 1949

Operation	Size of equipment	Times over	Time per acre once over: Man	Time per acre once over: Power	Acreage covered	Average time per acre - all farms: Man	Average time per acre - all farms: Tractor	Average time per acre - all farms: Horse
		No.	Hrs.	Hrs.	Pct.	Hrs.	Hrs.	Hrs.
Apply manure, spreader	75-bu.	1.0	4.00	2.00	4	0.16	0.08	---
Plow, moldboard	2-14 inch	1.0	1.32	1.26	100	1.32	1.26	---
Disk, tandem	7-foot	1.9	.49	.45	100	.93	.86	---
Harrow, spiketooth	15-foot	1.5	.32	.29	82	.39	.36	---
Harrow, spiketooth, h.	10-foot	1.5	.93	1.86	4	.06	---	0.11
Lay off rows	3-row	1.0	.60	.55	28	.17	.15	---
Lay off rows, horses	3-row	1.0	.70	1.10	23	.16	---	.25
Cross mark by hand	8-row	1.0	1.05	---	2	.02	---	---
Cross mark, horses	8-row	1.0	.47	.47	14	.07	---	.07
Fertilize, drill	8-foot	1.0	.68	.46	55	.37	.25	---
Sidedress	2-row	1.0	1.43	.87	84	1.20	.73	---
Transplant	2-row	1.0	12.60	2.10	74	9.32	1.55	---
Transplant	1-row	1.0	14.70	4.20	4	.59	.17	---
Transplant, horses	1-row	1.0	16.80	8.40	8	1.34	---	.67
Transplant by hand	---	1.0	20.00	.40	14	2.80	---	---
Reset by hand	---	1.0	2.50	---	50	1.25	---	---
Cultivate	2-row	5.2	.77	.70	92	3.68	3.25	---
Cultivate, horses	1-row	4.9	2.20	3.15	15	1.62	---	2.32
Hoe and weed	---	---	6.00	---	100	6.00	---	---
Lay up, horse	1-row	1.0	10.75	2.15	14	1.51	---	.30
Total preharvest 1/						32.96	8.66	3.72
Cut vines, horses	1-row	1.2	1.21	1.21	13	.19	---	.19
Dig	1-row	1.0	1.83	1.75	93	1.70	1.63	---
Dig, horses	1-row	1.0	2.56	5.12	7	.18	---	.36
Pick	---	1.0	30.50	---	60	18.30	---	---
Pick, contract	---	1.0	30.50	---	40	12.20	---	---
Haul, truck	1½-ton	1.0	4.40	.55	100	4.40	---	---
Total harvest						36.97	1.63	.55
Total 2/						69.93	10.29	4.27

1/ Does not include time required to grow plants.
2/ In addition, trucks were used 0.95 hour per acre.

AIR-CURED TOBACCO, TYPE 32: RESOURCES USED IN PRODUCTION, AREA VIII-D1, 1949

The data presented here are from a survey of approximately 31 farms in 1950, in southern Maryland. These farms are located in type-of-farming area VIII-D1, a tobacco and general farming area.

The farms surveyed averaged 191 total acres. Tobacco acreage, in 1949, ranged from 4 to 42 acres per farm. The most common acreage of tobacco per farm was about 18 acres and the average was 16 acres. The average yield of tobacco was 838 pounds per acre. Draft animals are still an important source of farm power for field operations on these farms.

Materials used and contract work hired per 100 square yards of plantbed, 1949

MATERIALS USED

Item	Unit	Quantity	Price per unit	Cost	Yardage covered	Average cost
		Number	Dollars	Dollars	Percent	Dollars
Cyanamide	Cwt.	0.74	4.50	3.33	69	2.30
Mixed fertilizer (7-7-7)	Cwt.	1.30	2.60	3.38	100	3.38
Nitrate fertilizer	Cwt.	.16	3.60	.58	37	.21
Manure	Cwt.	2.90	.50	1.45	51	.74
Seed	Ounce	.8	1.00	.80	100	.80
Poles and planks	---	---	---	1.30	100	1.30
Cotton cloth	---	---	---	1/ 3.00	100	3.00
Dust and spray materials	---	---	---	1.90	56	1.06
Total materials						12.79

CONTRACT WORK HIRED

Item	Unit	Quantity	Price per unit	Cost	Yardage covered	Average cost
Steaming	---	---	---	14.00	5	.70
Spraying	---	---	---	2.00	5	.10
Total contract work						.80

1/ Cost of cloth is $12.00 per 100 square yards. On the average it lasts 4 years.

Materials used and contract work hired in producing and harvesting air-cured tobacco, type 32, area VIII-D1, southern Maryland, 1949

Item	Unit	Quantity per acre	Price per unit	Cost per acre	Acreage covered	Average cost per acre
		Number	Dollars	Dollars	Percent	Dollars
Plant bed						
Materials and contract work 1/	---	---	---	---	---	8.18
Field						
Clover seed	Lb.	20	.25	5.00	46	2.30
Small grain seed	Bu.	1.8	2.15	3.87	59	2.28
Manure	Ton	6	2/ 2.00	12.00	67	8.04
Mixed fertilizer (4-8-12)	Cwt.	7.50	2.50	18.75	94	17.62
Phosphate fertilizer	Cwt.	2.40	1.65	3.96	10	.40
Hydrated lime	Cwt.	5.70	1.00	5.70	9	.51
Arsenate of lead	Lb.	1.8	.35	.63	27	.17
Hauling water, contract	---	---	---	7.35	6	.44
Total materials						31.76
Curing						
Fuel	---	---	---	1.50	16	.24
Tobacco barns, repair & depr.	---	---	---	---	3/	33.10
Strip rooms, repair & depr.	---	---	---	---	3/	1.50
Tobacco sticks, depreciation	---	---	---	---	3/	4.67
Marketing						
Packing, including hauling	Cwt.	6.67	3.00	20.01	4	.80
Hauling, contract	Cwt.	8.38	.40	3.35	43	1.44
Hogshead, rent	No.	1.2	3.00	3.60	10	.36
Total						82.05

1/ Total from table on page 1 times 60.2 square yards per acre. 2/ Estimated.
3/ Repair and depreciation on tobacco barns and strip rooms is about 10 percent and tobacco sticks depreciate at about 12 percent per year.

Man labor and power used per acre

Operation	Man labor	Mule work	Tractor work	Truck work
	Hours	Hours	Hours	Miles
Preharvest				
Plant bed 1/	39.6	0.5	1.9	---
Cover crop	2.6	.6	1.7	---
Land preparation	16.7	4.0	8.3	---
Transplanting	34.0	5.7	.6	---
Growing	50.2	12.9	.9	---
Cleaning up	6.0	---	---	---
Total preharvest	149.1	23.7	13.4	---
Harvest				
Harvesting	65.2	4.3	10.3	---
Grading	109.8	---	---	---
Marketing	2.6	---	---	4.7
Total harvest	177.6	4.3	10.3	4.7
Total	326.7	28.0	2/ 23.7	4.7

1/ It requires 65.8 hours of man labor, 0.9 hours of mule work and 3.2 hours of tractor work per 100 square yards of plantbed. 2/ In addition truck use

AIR-CURED TOBACCO, TYPE 41: RESOURCES USED IN PRODUCTION, AREA IV-F3, LANCASTER COUNTY, PENNSYLVANIA, 1949

The data presented here are from a survey made in 1950 of approximately 38 farms in Lancaster County, Pennsylvania. These farms are located in type-of-farming area IV-F3, a dairy and general farming area in the northern Piedmont.

Lancaster County produces most of the seedleaf, type 41 tobacco which is used almost exclusively for cigar filler in the United States.

The farms surveyed averaged 88 total acres. Tobacco acreage per farm in 1949 ranged from 3.5 to 30 acres. The average acreage per farm was 10 with 5 and 7 acres per farm being the most common. The average yield of tobacco was 1,578 pounds per acre. A considerable amount of the farm power for field operations on these farms is supplied by draft animals.

Materials used and contract work hired per 100 square yards of plantbed, 1949

MATERIALS USED

Item	Unit	Quantity	Price per unit	Cost	Yardage covered	Average cost
		Number	Dollars	Dollars	Percent	Dollars
Cyanamide	Cwt.	2.86	4.50	12.86	9	1.16
Mixed fertilizer 1/	Cwt.	1.20	3.60	4.32	91	3.93
Nitrate fertilizer	Cwt.	.40	3.95	1.58	14	.22
Tankage, etc.	—	—	—	5.25	17	.89
Manure	Ton	.67	2/ 2.00	1.34	83	1.11
Peat	Ton	.40	30.00	12.00	9	1.08
Seed	Ounce	1.7	.71	1.21	100	1.21
Cotton cloth	—	—	—	3/ 4.50	100	4.50
Dust and spray materials	—	—	—	3.05	75	2.29
Other materials	—	—	—	4.80	6	.29
Total materials						16.68

CONTRACT WORK HIRED

Item	Unit	Quantity	Price per unit	Cost	Yardage covered	Average cost
Steaming	—	—	—	13.00	91	11.83
Spraying	—	—	—	3.30	10	.33
Total contract work						12.16

1/ Mostly 5-10-10 or 4-8-12. 2/ Estimated. 3/ Cost of cloth is $11.25 per 100 square yards. On the average it lasts 2.5 years.

Materials used and contract work hired in producing and harvesting air-cured tobacco, type 41, area IV-F3, Lancaster County, Pennsylvania, 1949

Item	Unit	Quantity per acre	Price per unit	Cost per acre	Acreage covered	Average cost per acre
		Number	Dollars	Dollars	Percent	Dollars
Plant bed						
Materials and contract work 1/	---	---	---	---	---	6.03
Plants purchased 2/	---	---	---	---	---	1.18
Field						
Rye grass	Lb.	18	.15	2.70	20	.54
Manure	Ton	11	3/ 2.00	22.00	99	21.78
Mixed fertilizer (4-18-12)	Cwt.	8.60	2.55	21.93	95	20.83
Phosphate fertilizer	Cwt.	20.00	2.00	40.00	2	.80
Dust and spray materials	---	---	---	.95	15	.14
Airplane dusting, contract	---	---	---	6.00	5	.30
Total materials						44.39
Curing						
Tobacco barns, repair & depr.	---	---	---	---	4/	68.10
Tobacco sticks, depreciation	---	---	---	---	4/	3.28
Marketing						
Twine and paper	---	---	---	4.00	100	4.00
Hauling, contract	Cwt.	15.8	.19	3.00	71	2.13
Total						129.11

1/ Total from table on page 1 times 20.9 square yards per acre. 2/ Approximately 9 percent of the farms in this area had some plantbed failure and 2 percent planted all their tobacco acreage with purchased plants. 3/ Estimated. 4/ Repair and depreciation on tobacco barns in this area is about 6 percent and tobacco sticks depreciate at about 8 percent per year.

Man labor and power used per acre

Operation	Man labor	Mule work	Tractor work	Truck work
	Hours	Hours	Hours	Miles
Preharvest				
Plant bed 1/	5.9	0.8	0.3	---
Cover crop	.4	.1	.3	---
Land preparation	17.2	10.4	10.3	---
Transplanting	25.2	1.6	1.8	---
Growing	56.2	4.4	9.9	---
Total preharvest	104.9	17.3	22.6	---
Harvest				
Harvesting	55.6	7.9	7.3	---
Curing	.4	---	---	---
Grading	103.6	---	---	---
Marketing	1.2	---	---	2.7
Total harvest	160.8	7.9	7.3	2.7
Total	265.7	25.2	29.9	2.7

1/ It requires 29.1 hours of man labor, 4.0 hours of mule work, and 1.7 hours of tractor work per 100 square yards of plantbed.

MARKET TOMATOES: RESOURCES USED IN PRODUCTION, AREA I-C1, 1949

The data presented here are based on a 1950 survey of 20 farms that produce tomatoes for market in Gloucester County, New Jersey. This county is located in type-of-farming area I-C1, a truck and mixed farming area in the Atlantic sandy coastal plain.

The farms surveyed average 61 total acres of which 48 acres were in crops including 8 acres in tomatoes for market. In 1949 the average yield of tomatoes on these farms was 142 bushels an acre.

Tractors provide most of the power used on farms in this area; they were used for operations listed in the following tables unless otherwise indicated. The D.B.H.P. rating of these tractors ranged from 13 to 27; the more common was about 17.

Materials used and contract work hired, 1949

MATERIALS USED

Item	Unit	Quantity per acre	Price per unit	Cost per acre	Acreage covered	Average cost per acre
		Number	Dollars	Dollars	Percent	Dollars
Purchased plants	1,000	2.2	15.00	33.00	100	33.00
Manure	Ton	6	[1]2.00	12.00	45	5.40
Fertilizer (5-10-10)	Cwt.	17.70	2.30	40.71	100	40.71
Superphosphate	do.	8.40	1.50	12.60	13	1.64
Limestone	Ton	1.2	6.65	7.98	61	4.87
Dust [2]	Lb.	60	.09	5.40	82	4.43
Climax baskets	No.	227	.18	40.86	100	40.86
5/8 bushel hampers	do.	65	.17	11.05	100	11.05
Total materials						141.96
CONTRACT WORK HIRED						
Dusting, airplane	Acre	1.0	3.00	3.00	11	.33
Picking	5/8 bu.	227	.14	31.78	86	27.33
Total contract work						27.66

[1] Estimated.

[2] Excluding that applied by airplane.

Man labor, power, and machinery used by operation in producing and harvesting market tomatoes, area I-C1, Gloucester County, New Jersey, 1949

Operation	Size of equipment	Times over	Time per acre once over: Man	Time per acre once over: Power	Acreage covered	Average time per acre - all farms: Man	Average time per acre - all farms: Tractor
		No.	Hrs.	Hrs.	Pct.	Hrs.	Hrs.
Apply manure, spreader	75-bu.	1.0	3.25	1.62	38	1.24	0.62
Apply manure, wagon	---	1.0	5.85	1.62	7	.41	.11
Spread lime, spreader	8-foot	1.0	.98	.60	44	.43	.26
Fertilize, drill	8-foot	1.0	.68	.44	100	.68	.44
Plow, moldboard	2-14 inch	1.0	1.32	1.26	100	1.32	1.26
Disk, tandem	7-foot	1.7	.49	.45	100	.83	.76
Harrow, spiketooth	15-foot	1.2	.39	.36	67	.31	.29
Mark, horse	3-row	1.5	.65	.65	100	.98	---
List	2-row	1.0	.52	.47	100	.52	.47
Transplant, truck	1½-ton	1.0	21.40	1.50	100	21.40	---
Cultivate	1-row	5.4	.76	.69	100	4.10	3.73
Sidedress	1-row	1.0	.97	.88	6	.06	.05
Sidedress, horses	1-row	1.0	1.42	2.10	8	.11	---
Sidedress by hand	---	1.0	5.16	.50	31	1.60	---
Dust	3-row	2.7	.38	.35	62	.64	.59
Dust, horses	3-row	3.6	.41	.57	29	.43	---
Dust, airplane, custom	---	1.0	.35	---	11	.04	---
Dust by hand	---	1.0	2.22	---	8	.18	---
Hoe and weed	---	1.0	5.00	---	79	3.95	---
Total preharvest						39.23	8.58
Pick by hand	---	15.6	3.00	---	14	6.55	---
Pick by hand (contract)	---	15.6	3.00	---	86	40.24	---
Haul to shed, truck	1½-ton	15.6	.35	.17	100	5.46	---
Sort and pack by hand	---	15.6	1.20	---	100	18.72	---
Haul to market, truck	1½-ton	15.6	.55	.11	100	8.58	---
Total harvest						79.55	---
Total 1/						118.78	8.58

1/ In addition, horse work averaged 1.74 hours an acre and truck use averaged 6.03 hours an acre.

TOMATOES FOR PROCESSING: RESOURCES USED IN PRODUCTION, AREA I-C1, 1949

The data presented here are based on a 1950 survey of 17 farms that produce tomatoes for processing in Worcester County, Maryland. This county is located in type-of-farming area I-C1, a truck- and mixed-farming area in the Atlantic sandy coastal plain.

The farms surveyed averaged 382 total acres of which 175 acres were in crops, including 12 acres of tomatoes. In 1949, the average yield of tomatoes on these farms was 6.9 tons an acre.

Tractors provide most of the power used on farms in this area; they were used for operations listed in the following tables unless otherwise indicated. The D.B.H.P. rating of these tractors ranged from 10 to 26; the more common was about 18.

Materials used and contract work hired, 1949

MATERIALS USED

Item	Unit	Quantity per acre	Price per unit	Cost per acre	Acreage covered	Average cost per acre
		Number	Dollars	Dollars	Percent	Dollars
Purchased plants	1,000	3.0	4.25	12.75	100	12.75
Manure	Ton	.8	1/ 2.00	16.00	90	14.40
Fertilizer (4-8-12)	Cwt.	12.70	2.30	29.21	100	29.21
Hydrated lime	Ton	.5	20.50	10.25	61	6.25
Dust 2/	Lb.	60	.09	5.40	82	4.43
Baskets, (replacements)	No.	35	.17	5.95	100	5.95
Total materials						72.99

CONTRACT WORK HIRED

Dusting	Acre	1.0	3/ 4.20	4.20	5	.21
Picking	Basket	414	.10	41.40	83	34.36
Total contract work						34.57

1/ Estimated.

2/ Excluding that which is applied by custom operators.

3/ Includes dust.

Man labor, power, and machinery used by operation in producing and harvesting tomatoes for processing, area I-C1, Worcester County, Maryland, 1949

Operation	Size of equipment	Times over	Time per acre once over		Acreage covered	Average time per acre - all farms		
			Man	Power		Man	Tractor	Horse
		No.	Hrs.	Hrs.	Pct.	Hrs.	Hrs.	Hrs.
Apply manure, spreader	75-bu.	1.0	3.80	1.90	90	3.42	1.71	---
Spread lime	8-foot	1.0	.98	.60	53	.52	.32	---
Fertilize, spreader	8-foot	1.0	.68	.44	42	.29	.18	---
Plow, moldboard	2-14 inch	1.0	1.32	1.26	100	1.32	1.26	---
Disk, tandem	7-foot	2.2	.49	.45	100	1.08	.99	---
Harrow, spiketooth	15-foot	1.7	.39	.36	54	.36	.33	---
Mark rows, horse	3-row	1.0	.65	.65	21	.14	---	0.14
Sidedress	1-row	1.0	.97	.88	44	.43	.39	---
Sidedress, horses	1-row	1.0	1.42	2.10	24	.34	---	.50
Transplant	1-row	1.0	4.40	1.40	44	1.94	.62	---
Transplant, horses	1-row	1.0	4.88	2.33	24	1.17	---	.56
Transplant, by hand	---	1.0	7.14	---	32	2.28	---	---
Cultivate	1-row	4.2	.76	.69	32	1.02	.93	---
Cultivate, horses	1-row	4.2	1.55	2.28	68	4.43	---	6.51
Dust	3-row	2.3	.38	.35	45	.39	.36	---
Dust, horses	3-row	2.3	.41	.57	23	.22	---	.30
Dust, by hand	---	2.3	2.22	---	9	.46	---	---
Dust, contract	3-row	1.0	.40	.20	5	.02	.01	---
Hoe and weed	---	1.0	5.00	---	79	3.95	---	---
Total preharvest						23.78	7.10	8.01
Pick by hand	---	6.5	11.00	---	17	12.16	---	---
Pick by hand, contract	---	6.5	11.00	---	83	59.34	---	---
Load by hand	---	1.0	5.00	---	100	5.00	---	---
Haul, truck	1½-ton	1.0	5.36	2.68	100	5.36	---	---
Total harvest						81.86		
Total 1/						105.64	7.10	8.01

1/ In addition, truck use averaged 2.68 hours an acre.

WINTER WHEAT: RESOURCES USED IN PRODUCTION, AREA I-C1, 1949

The data presented here are based on a 1950 survey of 52 wheat-producing farms in New Jersey, Delaware and Maryland. These farms are in type-of-farming area I-C1, a truck-and mixed-farming area of the Atlantic sandy coastal plain. They averaged 208 total acres, of which 132 were in crops, including 31 in wheat. In 1949, the average yield of wheat in this area was 17 bushels an acre.

Tractors provide most of the power used on these farms; they were used for operations listed in the following tables unless otherwise indicated. The D.B.H.P. rating of these tractors ranged from 10 to 27; the more common was about 17.

Materials used and contract work hired, 1949

MATERIALS USED

Item	Unit	Quantity per acre	Price per unit	Cost per acre	Acreage covered	Average cost per acre
		Number	Dollars	Dollars	Percent	Dollars
Own seed	Bu.	1.9	1/ 2.89	5.49	63	3.46
Purchased seed	do.	1.9	2.89	5.49	37	2.03
Manure	Ton	8	1/ 2.00	16.00	11	1.76
Fertilizer (5-10-10)	Cwt.	4.40	2.30	10.12	9	.91
Fertilizer (3-12-6)	do.	3.70	2.00	7.40	89	6.59
Limestone	Ton	.7	7.50	5.25	14	.74
Twine	Lb.	2.4	.24	.58	12	.07
Total materials						15.56

CONTRACT WORK HIRED

Item	Unit	Quantity per acre	Price per unit	Cost per acre	Acreage covered	Average cost per acre
Combining	Acre	1.0	5.26	5.26	21	1.10
Threshing	Bu.	17.0	.10	1.70	8	.14
Hauling	do.	17.0	.10	1.70	4	.07
Total contract work						1.31

1/ Estimated.

Man labor, power, and machinery used by operation in producing and harvesting wheat, area I-C1, Atlantic sandy coastal plain, 1949

Operation	Size of equipment	Times over	Time per acre: once over		Acreage covered	Average time per acre - all farms		
			Man	Power		Man	Tractor	Horse
		No.	Hrs.	Hrs.	Pct.	Hrs.	Hrs.	Hrs.
Apply manure, spreader	75-bu.	1.0	4.00	2.00	11	0.44	0.22	---
Spread lime	8-foot	1.0	.98	.60	2	.02	.01	---
Fertilize, spreader	8-foot	1.0	.68	.44	4	.03	.02	---
Plow, moldboard	2-14 inch	1.0	1.32	1.26	91	1.20	1.15	---
Plow, moldboard	1-14 inch	1.0	5.84	11.68	2	.12	---	0.23
Disk, tandem	7-foot	2.5	.49	.45	83	1.02	.93	---
Disk, single	6-foot	2.5	2.63	5.25	1	.07	---	.13
Disk and roll	7-foot	2.5	.47	.47	21	.25	.25	---
Harrow, springtooth	15-foot	1.2	.39	.36	14	.07	.06	---
Harrow, spiketooth	10-foot	2.5	.32	.29	22	.18	.16	---
Harrow, spiketooth, h.	9-foot	2.5	.93	1.87	1	.02	---	.04
Roll	8-foot	1.0	.49	.45	9	.04	.05	---
Seed, drill	8-foot	1.0	.77	.49	88	.68	.43	---
Seed, drill, horses	8-foot	1.0	1.10	2.10	12	.13	---	.25
Total preharvest						4.27	3.28	.65
Combine	6-foot	1.0	1.73	.84	67	1.16	.56	---
Combine, contract	6-foot	1.0	1.73	.84	21	.36	.18	---
Bind	8-foot	1.0	1.38	.71	11	.15	.08	---
Bind, horses	6-foot	1.0	.91	1.74	1	.01	---	.02
Shock by hand	---	1.0	1.00	---	12	.12	---	---
Haul bundles	---	1.0	3.50	.63	7	.24	.04	---
Haul bundles, horses	---	1.0	3.50	3.30	5	.18	---	.16
Thresh	28-inch	1.0	.74	.35	8	.06	.03	---
Thresh, contract	28-inch	1.0	.74	.35	4	.03	.01	---
Haul grain	---	1.0	.50	.25	17	.08	.04	---
Haul grain, truck	1½ ton	1.0	.50	.25	74	.37	---	---
Haul grain, contract	---	1.0	.50	.25	4	.02	---	---
Haul grain, horses	---	1.0	.60	1.20	5	.03	---	.06
Total harvest						2.81	.94	.24
Total 1/						7.08	4.22	.89

1/ In addition, truck use averaged 0.20 hour per acre.

WINTER WHEAT: RESOURCES USED IN PRODUCTION, AREA IV-F3, 1949

The data presented here are based on a 1950 survey of 60 wheat-producing farms in type-of-farming area IV-F3, northern Piedmont. This dairy-and general-farming area comprises parts of Pennsylvania, Maryland, Virginia, and Delaware. Wheat schedules were taken in the first three of these States.

The farms surveyed averaged 208 total acres, of which 135 were in crops, including 34 in wheat. In 1949, the average yield of wheat in this area was 20 bushels an acre.

Tractors provide most of the power used on farms in this area; they were used for operations listed in the following tables unless otherwise indicated. The D.B.H.P. rating of these tractors ranged from 10 to 26; the more common was about 19.

Materials used and contract work hired, 1949

MATERIALS USED

Item	Unit	Quantity per acre	Price per unit	Cost per acre	Acreage covered	Average cost per acre
		Number	Dollars	Dollars	Percent	Dollars
Own seed	Bu.	1.9	1/ 2.59	4.92	64	3.15
Purchased seed	do.	1.9	2.59	4.92	36	1.77
Manure	Ton	5	1/ 2.00	10.00	15	1.50
Fertilizer (3-12-6)	Cwt.	3.05	2.00	6.10	87	5.31
Limestone	Ton	1.0	6.30	6.30	3	.19
Twine	Lb.	2.5	.24	.60	50	.30
Total materials						12.22

CONTRACT WORK HIRED

Combining	Acre	1.0	5.00	5.00	18	.90
Threshing	Bu.	20.0	.09	1.80	29	.52
Total contract work						1.42

1/ Estimated.

Man labor, power, and machinery used by operation in producing and harvesting wheat, area IV-F3, northern Piedmont, 1949

Operation	Size of equipment	Times over	Time per acre once over: Man	Time per acre once over: Power	Acreage covered	Average time per acre - all farms: Man	Average time per acre - all farms: Tractor
		No.	Hrs.	Hrs.	Pct.	Hrs.	Hrs.
Apply manure	75-bu.	1.0	2.60	1.30	15	0.39	0.20
Fertilize, spreader	8-foot	1.0	.68	.44	2	.01	.01
Plow	2-14 inch	1.0	1.43	1.36	78	1.12	1.06
Disk, tandem	7-foot	2.2	.55	.52	63	.76	.72
Disk and harrow	7-foot	2.8	.58	.56	17	.28	.27
Harrow, springtooth	10-foot	2.2	.44	.42	47	.46	.43
Harrow, spiketooth	15-foot	1.4	.26	.25	34	.12	.12
Seed, drill	8-foot	1.0	.77	.49	78	.60	.38
Seed, drill, horses	8-foot	1.0	1.10	2.10	22	.24	---
Total preharvest						3.98	3.19
Combine	6-foot	1.0	1.32	.84	32	.42	.27
Combine (contract)	6-foot	1.0	1.32	.84	18	.24	.15
Haul from combine	---	1.0	.50	.25	26	.13	.06
Haul from combine, truck	1½ ton	1.0	.50	.25	24	.12	---
Bind	8-foot	1.0	1.38	.71	50	.69	.36
Shock by hand	---	1.0	1.10	---	50	.55	---
Haul bundles	---	1.0	3.50	.63	46	1.61	.29
Haul bundles, horses	---	1.0	3.50	3.30	4	.14	---
Thresh	28-inch	1.0	.74	.35	21	.16	.07
Thresh (contract)	28-inch	1.0	.74	.35	29	.21	.10
Haul from thresher	---	1.0	.42	.20	50	.21	.10
Total harvest						4.48	1.40
Total 1/						8.46	4.59

1/ In addition horse work averaged 0.59 hour an acre and truck work averaged 0.06 hour an acre.

WINTER WHEAT: RESOURCES USED IN PRODUCTION, AREA IV-F4, 1949

The data presented here are based on a survey made on approximately 37 farms in 1950, in northeastern Ohio and northwestern Pennsylvania. These farms are in type-of-farming area IV-F4, a dairy-and general-farming area on the Lake Erie border.

The farms surveyed averaged 141 total acres. In 1949, 93 acres were in crops, including 21 in wheat. The average yield of wheat was 35 bushels per acre.

Tractors provide most of the power used on these farms. They were used for operations listed below unless otherwise indicated. The D.B.H.P. rating ranged from 10 to 29; the most common was 17.

Materials used and contract work hired, 1949

MATERIALS USED

Item	Unit	Quantity per acre	Price per unit	Cost per acre	Acreage covered	Average cost per acre
		Number	Dollars	Dollars	Percent	Dollars
Seed 1/	Bu.	2.5	2.55	6.38	100	6.38
Manure	Ton	9	2/2.00	18.00	25	4.50
Mixed fertilizer	Cwt.	2.80	2.25	6.30	99	6.24
Lime	Ton	1.9	3.85	7.32	44	3.22
Twine	Lb.	2.5	.26	.65	31	.20
Sacks	No.	22	.10	2.20	4	.09
Total materials						20.63

CONTRACT WORK HIRED

Item	Unit	Quantity per acre	Price per unit	Cost per acre	Acreage covered	Average cost per acre
Combining	Acre	1.0	5.00	5.00	14	.70
Threshing	Bu.	35.0	.08	2.80	11	.31
Total contract work						1.01

1/ Approximately 18 percent of the farmers in this area purchased seed wheat.
2/ Estimated.

Man labor, power, and machinery used by operation in producing and harvesting wheat, area IV-F4, northeastern Ohio and northwestern Pennsylvania, 1949

Operation	Size of equipment	Times over	Time per acre once over		Acreage covered	Average time per acre - all farms		
			Man	Power		Man	Tractor	Horse
		No.	Hrs.	Hrs.	Pct.	Hrs.	Hrs.	Hrs.
Apply manure, spreader	75-bu.	1.0	4.02	1.31	22	0.88	0.29	---
Apply manure, horses-sp.	65 bu.	1.0	4.56	6.38	3	.14	---	0.19
Spread lime	---	1.0	.61	.56	38	.23	.21	---
Plow, moldboard	2-14 inch	1.0	1.53	1.46	76	1.16	1.11	---
Plow, moldboard	2-12 inch	1.0	2.00	1.91	7	.14	.13	---
Plow, moldboard, horses	1-12 inch	1.0	4.74	9.48	7	.33	---	.66
Disk, tandem	7-foot	2.2	.48	.46	88	.93	.89	---
Disk, tandem, horses	7-foot	1.0	1.69	5.91	4	.07	---	.24
Harrow, spiketooth	9-foot	1.6	.45	.41	64	.46	.42	---
Harrow, spiketooth, h.	9-foot	2.8	1.31	3.28	7	.26	---	.64
Clean seed	---	1.0	.42	---	2	.01	---	---
Seed, drill	6-foot	1.0	.93	.65	75	.70	.49	---
Seed, drill, horses	6-foot	1.0	1.12	2.13	24	.27	---	.51
Total preharvest						5.58	3.54	2.24
Combine	6-foot	1.0	1.81	.92	55	1.00	.51	---
Combine, contract	6-foot	1.0	1.13	.92	14	.16	.13	---
Haul from combine	---	1.0	1.03	.39	69	.71	.27	---
Bind	7-foot	1.0	1.68	.82	25	.42	.20	---
Bind, horses	7-foot	1.0	1.50	3.43	6	.09	---	.21
Shock by hand	---	1.0	1.48	---	31	.46	---	---
Haul bundles	---	1.0	5.75	.99	19	1.09	.19	---
Haul bundles, horses	---	1.0	4.92	3.83	12	.59	---	.46
Thresh	22-inch	1.0	1.88	.73	20	.38	.15	---
Thresh, contract	22-inch	1.0	1.88	.73	11	.21	.08	---
Total harvest						5.11	1.53	.67
Total						10.69	5.07	2.91

WINTER WHEAT: RESOURCES USED IN PRODUCTION, AREA IV-F6, 1949

The data presented here are based on a 1950 survey of 20 wheat-producing farms in west central Pennsylvania. These farms are in type-of-farming area IV-F6, a dairy-and general-farming area in the Allegheny Plateau.

The farms surveyed averaged 169 total acres, of which 124 acres were in crops, including 27 in wheat. In 1949, the average yield of wheat on these farms was 27 bushels per acre.

Tractors provide most of the power used on farms in this area. They were used for operations listed in the following tables unless otherwise indicated. The D.B.H.P. rating of these tractors ranged from 13 to 28; the most common was about 19.

Materials used and contract work hired, 1949

MATERIALS USED

Item	Unit	Quantity per acre	Price per unit	Cost per acre	Acreage covered	Average cost per acre
		Number	Dollars	Dollars	Percent	Dollars
Seed 1/	Bu.	2.0	2.65	5.30	100	5.30
Manure	Ton	8	2/ 2.00	16.00	37	5.92
Mixed fertilizer	Cwt.	2.95	2.20	6.49	100	6.49
Lime	Ton	1.6	4.80	7.68	57	4.38
Twine	Lb.	1.5	.26	.39	52	.20
Sacks	No.	13	.09	1.17	3	.04
Total materials						22.33

CONTRACT WORK HIRED

Item	Unit	Quantity per acre	Price per unit	Cost per acre	Acreage covered	Average cost per acre
Cleaning seed	Bu.	2.0	.07	.14	32	.04
Combining	Acre	1.0	4.15	4.15	6	.25
Threshing	Bu.	27	.08	2.16	28	.60
Total contract work						.89

1/ Approximately 11 percent of the farmers in this area purchased seed wheat.
2/ Estimated.

Man labor, power, and machinery used by operation in producing and harvesting winter wheat, area IV-F6, west central Pennsylvania, 1949

Operation	Size of equipment	Times over	Time per acre once over		Acreage covered	Average time per acre - all farms		
			Man	Power		Man	Tractor	Horse
		No.	Hrs.	Hrs.	Pct.	Hrs.	Hrs.	Hrs.
Apply manure, spreader	75-bu.	1.0	5.50	2.28	36	1.98	0.82	---
Apply manure, horse-sp.	65-bu.	1.0	5.50	10.00	1	.06	---	.10
Spread lime	---	1.0	.95	.67	18	.17	.12	---
Plow, moldboard	2-14 inch	1.0	1.55	1.48	84	1.30	1.24	---
Plow, moldboard	2-12 inch	1.0	2.34	2.24	13	.30	.29	---
Disk, tandem	8-foot	2.4	.46	.44	59	.65	.63	---
Disk, tandem	7-foot	2.0	.53	.50	26	.28	.26	---
Harrow, springtooth	10-foot	1.9	.51	.46	49	.48	.43	---
Harrow, spiketooth, h.	6-foot	4.0	1.33	2.55	1	.05	---	.01
Clean seed	---	1.0	.75	---	22	.16	---	---
Clean seed, contract	---	1.0	.44	---	32	.14	---	---
Seed, drill	6-foot	1.0	.85	.62	92	.78	.57	---
Seed, drill, horses	6-foot	1.0	1.15	2.20	8	.09	---	.18
Total preharvest						6.44	4.36	.29
Combine	4-foot	1.0	2.48	1.01	42	1.04	.42	---
Combine, contract	4-foot	1.0	1.24	1.01	6	.07	.06	---
Haul from combine	---	1.0	1.60	.46	48	.77	.22	---
Bind	7-foot	1.0	1.70	.83	40	.68	.33	---
Bind, horses	8-foot	1.0	.64	2.33	12	.08	---	.28
Shock by hand	---	1.0	1.78	---	52	.93	---	---
Haul bundles	---	1.0	5.14	.79	33	1.70	.26	---
Haul bundles, horses	---	1.0	5.36	1.70	19	1.02	---	.32
Thresh	28-inch	1.0	2.33	.62	24	.56	.15	---
Thresh, contract	28-inch	1.0	2.33	.62	28	.65	.17	---
Haul grain	---	1.0	.65	.17	52	.34	.09	---
Total harvest						7.84	1.70	.60
Total						14.28	6.06	.89

State Groupings by Type-of-Farming Regions for Release of Crop-Production Practice Data

Section 1

Northeast

Maine
New Hampshire
Vermont
Massachusetts
Rhode Island
Connecticut
New York
New Jersey
Pennsylvania
Delaware
Maryland

Section 2

Lake States

Michigan
Wisconsin
Minnesota

Corn Belt

Ohio
Indiana
Illinois
Iowa
Missouri

Section 3

Appalachian

Virginia
West Virginia
North Carolina
Kentucky
Tennessee

Southeast

South Carolina
Georgia
Florida
Alabama

Mississippi Delta

Mississippi
Arkansas
Louisiana

Section 4

Southern Plains

Oklahoma
Texas

Northern Plains

North Dakota
South Dakota
Nebraska
Kansas

Section 5

Mountain

Montana
Idaho
Wyoming
Colorado
New Mexico
Arizona
Utah
Nevada

Pacific

Washington
Oregon
California

Crops and Type-of-Farming Areas for which Cropping-Practice Data are Available in Section 2

Lake States and Corn Belt

Crop	Type-of-farming area	Crop year	Crop	Type-of-farming area	Crop year
Alfalfa:	I-B5	1950	Corn, silage:	I-B5	1950
	IV-D1	1949		IV-A2	1950
	IV-F1	1950		IV-B2	1950
	IV-F4	1949		IV-D1	1949
	VI-H3			IV-F1	1950
	(Ohio)	1949		IV-F4	1949
				V-D1	1949
Barley:	III-E2	1950		V-F4	1949
	IV-A2	1950		V-H2	1950
	IV-B2	1950		VI-H3	
	IV-D1	1949		(Ohio)	1949
	IV-F1	1950			
	V-A1	1949	Corn, sweet:		
	V-F4	1949	(fresh market)	IV-A2	1950
Beans, dry:	IV-D1	1949	Corn, sweet:		
			(processing)	IV-A2	1950
				IV-B2	1950
Clover, hay:	I-B5	1950			
	IV-D1	1949			
	IV-F1	1950	Flax:	IV-A2	1950
	IV-F4	1949		IV-B1	1950
	VI-H3			IV-B2	1950
	(Ohio)	1949		V-A1	1949
				V-F4	1949
Corn, grain:	I-B5	1950			
	IV-A2	1950	Grain sorghum:	V-A1	1949
	IV-B1	1950		V-G1	1949
	IV-B2	1950			
	IV-D1	1949	Oats:	I-B5	1950
	IV-F1	1950		III-E2	1950
	IV-F4	1949		IV-A2	1950
	V-A1	1949		IV-B1	1950
	V-A1			IV-B2	1950
	(Nebr.)	1948		IV-D1	1949
	V-B1	1947		IV-F1	1950
	V-B2			IV-F4	1949
	(Ill.)	1947		V-A1	1949
	V-D1	1949		V-B1	1947
	V-F4	1949		V-B2	
	V-G1	1949		(Ill.)	1947
	V-H1	1950		V-D1	1949
	V-H2	1950		V-F4	1949
	VI-G2	1950		V-G1	1949
	VI-G3	1950		V-H1	1950
	VI-H3			V-H2	1950
	(Ohio)	1949		VI-G2	1950
				VI-G3	1950

Continued

Crops and Type-of-Farming Areas for which Cropping-Practice Data are Available in Section 2 - Continued

Lake States and Corn Belt

Crop	Type-of-farming area	Crop year	Crop	Type-of-farming area	Crop year
Peas: (processing)	IV-A2	1950	Wheat, spring:	IV-A2	1950
	IV-F1	1950		IV-B1	1950
				IV-B2	1950
Red clover seed:	I-B5	1950		V-F4	1949
Rye:	III-E2	1950			
	IV-B1	1950	Wheat, winter:	I-A6 (Mo.)	1950
Soybeans:	IV-B1	1950		I-B5	1950
	IV-B2	1950		IV-B1	1950
	IV-D1	1949		IV-B2	1950
	V-A1	1949		IV-D1	1949
	V-B1	1947		IV-F4	1949
	V-B2 (Ill.)	1947		V-A1 (Nebr.)	1949
	V-D1	1949		V-D1	1949
	V-F4	1949		V-G1	1949
	V-G1	1949		V-H1	1950
	V-H1	1950		V-H2	1950
	VI-G2	1950		VI-G2	1950
	VI-G3	1950		VI-G3	1950
	VI-H3 (Ohio)	1949		VI-H3 (Ohio)	1949

Crops and Type-of-Farming Areas for which Cropping-Practice Data are Available in Section 3

Appalachian, Southeast, and Mississippi Delta

Crop	Type-of-farming area	Crop year
Alfalfa:	VI-J1	1949
Barley:	IV-F3	1949
	VI-J2	1950
Beans, snap:	VII-A6	1950
Corn, grain:	IV-F3	1949
	VI-J1	1949
	VI-J2	1950
	VI-L1 (N.C.)	1949
	VI-L1 (Va.)	1949
	VII-A6	1950
	VII-A8	1949
	IX-D2	1949
	IX-D3	1949
Lespedeza hay:	VI-J1	1949
Oats:	IV-F3	1949
	IX-D2	1949
Peanuts:	VII-A8	1949
	IX-D2	1949
	IX-D3	1949
Soybeans:	IV-F3	1949
	VI-L1 (N.C.)	1949
	VI-L1 (Va.)	1949
	VII-A8	1949
	IX-D3	1949
Strawberries:	IX-D2	1949
Sweetpotatoes:	IX-D2	1949
Tobacco:		
Type 11	VI-H4	1949
	VIII-A1	1949
Type 12 (and 11 and 13)	VII-B1	1947
	VIII-A1	1947
Type 13	VI-M1	1949
Type 14	VI-M1	1949
	VII-C1	1949
	IX-D2	1949
Type 21	VI-H4	1949
Type 22	VIII-C1 (Tenn.)	1949
Type 31	VI-J1	1949
	VI-J2	1949
	VIII-C1 (Tenn.)	1949
Type 35	VIII-C1 (Tenn.)	1949
Tomatoes:	VII-A6	1950
Wheat, winter:	IV-F3	1949
	VI-J2	1950
	VI-L1 (Va.)	1949

Crops and Type-of-Farming Areas for which Cropping-Practice Data are Available in Section 4

Great Plains

Crop	Type-of-farming area	Crop year	Crop	Type-of-farming area	Crop year
Alfalfa:	VI-E1	1949	Flax: (Cont'd)	V-G1	1949
Irrigated:	IX-F2	1951		V-F4	1949
				VI-E2	1949
Barley:	II-B4	1949			
	III-A3	1947	Grain sorghum:	II-B4	1949
	III-C2	1950		V-A1	1949
	III-E2	1950		V-G1	1949
	III-E3	1949		VI-E1	1949
	V-A1	1949		VI-E2	1949
	V-F4	1949		VII-A2	1949
	V-G1	1949		VII-G2	1949
	VI-E1	1949			
	VI-E2	1949	Hairy vetch seed:	VI-E1	1949
	VII-A2	1949		VII-A2	1949
Irrigated:	IX-F2	1951			
			Huban clover seed:	VI-E1	1949
Beans, dry: Irrigated:	IX-F2	1951			
			Madrid clover seed:	VII-A2	1949
Broom corn:	VII-G2	1949			
			Oats:	II-B4	1949
Corn, grain:	II-B4	1949		III-A3	1950
	III-A3	1950		III-C2	1950
	III-C2	1950		III-E2	1950
	III-E3	1949		III-E3	1949
	V-A1	1949		V-A1	1949
	V-A1			V-F4	1949
	(Nebr.)	1948		V-G1	1949
	V-F2	1950		VI-E1	1949
	V-F4	1949		VI-E2	1949
	V-G1	1949		VII-A2	1949
	VI-E1	1949		VII-G2	1949
	VI-E2	1949	Irrigated	IX-F2	1951
	VII-A2	1949			
	VII-G2	1949	Peanuts:	VI-E1	1949
Irrigated:	IX-F2	1951		VII-A2	1949
				VII-G2	1949
Corn, silage:	III-E3	1949			
	V-F4	1949	Rye:	III-A3	1950
				III-C2	1950
Flax:	II-B1	1950		III-E2	1950
	II-B4	1949		III-E3	1949
	III-A2	1950			
	III-A3	1947	Soybeans:	V-A1	1949
	III-C2	1950		V-F4	1949
	III-E3	1949		V-G1	1949
	V-A1	1949		VI-E2	1949

Continued -

Crops and Type-of-Farming Areas for which Cropping-Practice Data are Available in Section 4 - Continued

Great Plains

Crop	Type-of-farming area	Crop year	Crop	Type-of-farming area	Crop year
Sugar beets: Irrigated	IX-F2	1951	Wheat, winter:	II-B4	1949
				III-E4	1950
Sweet clover seed:	VII-A2	1949		V-A1 (Nebr.)	1949
Wheat, spring:			continuous cropping	V-F2	1950
continuous cropping	II-B1	1950	summer fallow	V-F2	1950
summer fallow	II-B1	1950		V-G1	1949
wheat after corn	II-B1	1950		VI-E1	1949
continuous cropping	III-A2	1950		VI-E2	1949
summer fallow	III-A2	1950		VII-A2	1949
wheat after corn	III-A2	1950		VII-G2	1949
	III-A3	1947			
continuous cropping	III-C2	1950			
summer fallow	III-C2	1950			
wheat after corn	III-C2	1950			
	III-E3	1949			
	V-F1	1950			
	V-F4	1949			

Crops and Type-of-Farming Areas for which Cropping-Practice Data are Available in Section 5

Mountain and Pacific States

Crop		Type-of-farming area	Crop year
Alfalfa:	Irrigated	II-A1	1950
	do.	II-A3	1950
	do.	II-B2	1950
	do.	VI-D1	1950
	do.	VI-D3	1950
	do.	VI-D4	1950
	do.	IX-F1	1950
	do.	IX-F2	1951
Alsike:	Irrigated	II-A1	1950
Austrian winter peas:	Non-irrigated	IV-E1	1950
Barley:	Irrigated	I-A1	1949
	Non-irrigated	I-A3	1950
	Irrigated	II-A3	1950
	do.	II-B2	1950
	Non-irrigated	II-B2	1950
	do.	III-C2	1950
	do.	IV-E1	1950
	Irrigated	VI-D1	1950
	do.	VI-D3	1950
	do.	VI-D4	1950
	do.	IX-F1	1950
	do.	IX-F2	1951
Beans, dry:	Irrigated	I-A1	1949
	do.	I-A3	1949
	do.	I-A5 (Colo.)	1950
	Non-irrigated	II-B2	1950
	Irrigated	II-C3 (Colo.)	1950
	do.	II-C3 (N.Mex.)	1950
	Non-irrigated	II-C3 (Colo.)	1950
	do.	II-C3 (N.Mex.)	1950
	Irrigated	II-D1 (N.Mex.)	1950
	Non-irrigated	II-D1 (Ariz.)	1950
Beans, dry: Contd.	Irrigated	III-B1	1949
	do.	VI-D4	1950
	do.	IX-E1	1949
	do.	IX-F1	1949
	do.	IX-F1	1951
	do.	IX-F2	1951
Broom corn:	Non-irrigated	II-B2	1950
Corn, grain:	Irrigated	I-A1	1949
	do.	II-B2	1950
	Non-irrigated	II-B2	1950
	do.	III-C2	1950
	Irrigated	VI-D4	1950
	do.	IX-F1	1951
	do.	IX-F2	1951
Corn, silage:	Irrigated	II-A3	1949
	do.	VI-D1	1949
Cotton:	Irrigated	VII-K1	1949
Flax:		III-C2	1950
Grain sorghum:	Non-irrigated	II-B2	1950
	Irrigated	VI-D4	1950
Hops:	Irrigated	I-A1	1949
Ladino:	Irrigated	II-A1	1950
Oats:	Irrigated	I-A1	1949
	do.	II-A3	1950
	Non-irrigated	III-C2	1950
	do.	IV-E1	1950
	Irrigated	VI-D1	1950
	do.	VI-D3	1950
	do.	VI-D4	1950
	do.	IX-F1	1950
	do.	IX-F2	1951
Onions:	Irrigated	VI-B1	1950
	do.	VI-D4	1950

Continued -

Crops and Type-of-Farming Areas for which Cropping-Practice Data are Available in Section 5- Continued

Mountain and Pacific States

Crop	Type-of-farming area	Crop year	Crop	Type-of-farming area	Crop year
Potatoes: Irrigated	I-A1	1949	Wheat, spring: summer fallow	III-C2	1950
do.	II-A1	1950	continuous cropping	III-C2	1950
do.	VI-D1	1950	wheat after corn	III-C2	1950
do.	VI-D3	1950			
do.	VI-D4	1950	Wheat, winter: Irrigated	I-A1	1949
			Non-irrigated	I-A3	1950
Rice: Irrigated	I-A3	1949	Irrigated	II-A1	
				(Utah)	1951
Rye:	III-C2	1950	summer fallow	II-A1	
				(Utah)	1951
Small grains: Irrigated	II-A1	1950	Irrigated	II-A3	1950
do.	III-C3		do.	II-B2	1950
	(Colo.)	1950	Non-irrigated	II-B2	1950
Non-irrigated	III-C3		summer fallow	II-B2	1950
	(Colo.)	1950	Irrigated	II-C3	
				(Colo.)	1951
Sugar beets: Irrigated	I-A1	1949			
do.	II-B2	1950	Wheat, winter: summer fallow	II-C3	
do.	VI-D1	1951		(Colo.)	1951
do.	VI-D4	1950	do.	II-D1	
do.	IX-F1	1949		(Utah)	1951
do.	IX-F2	1951	do.	III-C3	
				(Colo.)	1950
Vetch seed: Non-irrigated	IV-E1	1950	Non-irrigated	IV-E1	1950
			Irrigated	VI-D1	1950
			Non-irrigated	VI-D1	1950
			Irrigated	VI-D3	1950
			do.	VI-D4	1950
			summer fallow	IX-E2	1949
			Irrigated	IX-F1	1950
			summer fallow	IX-F1	1951